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FALL/WINTER 1997

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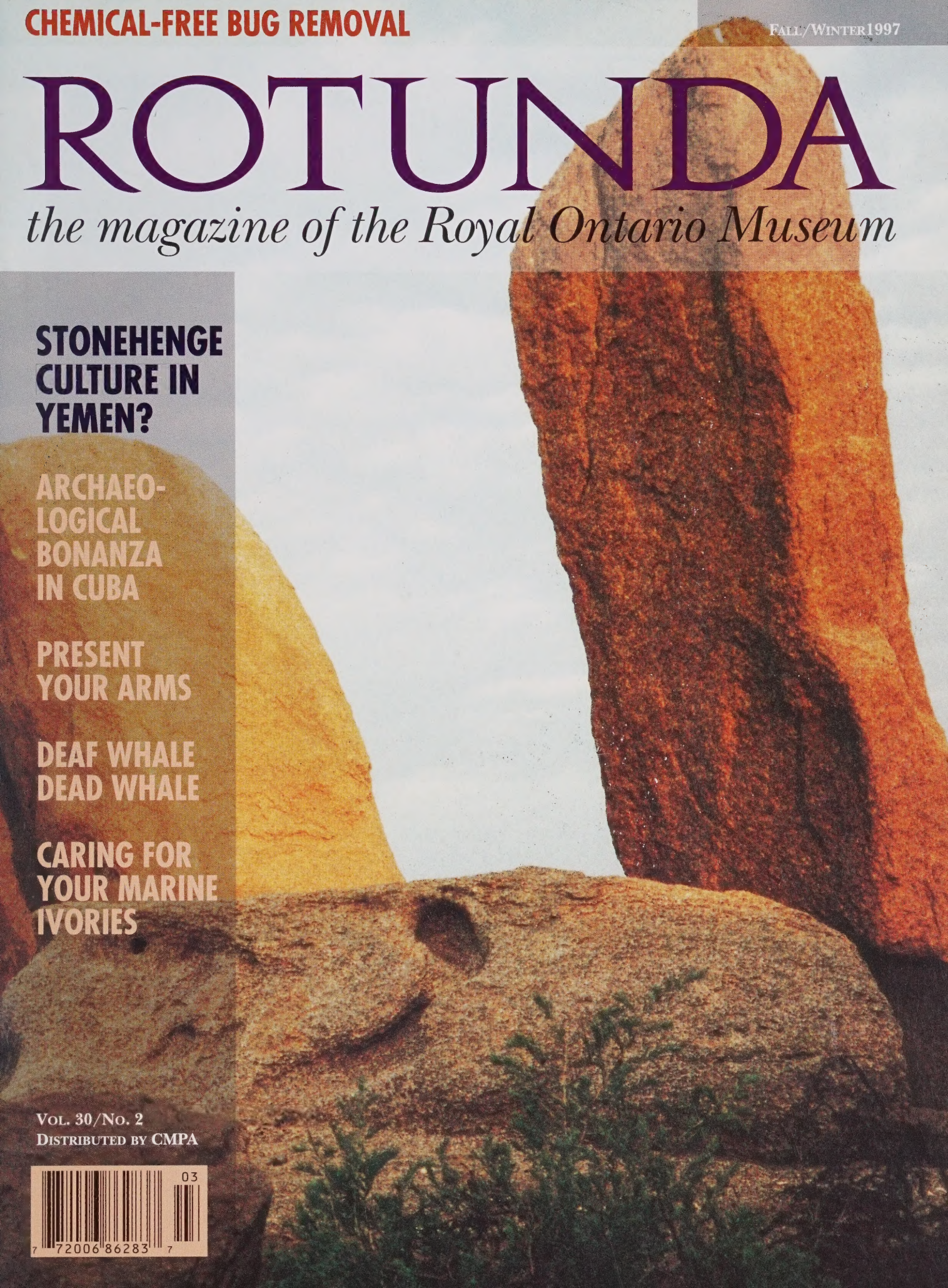

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the magazine of the Royal Ontario Museum

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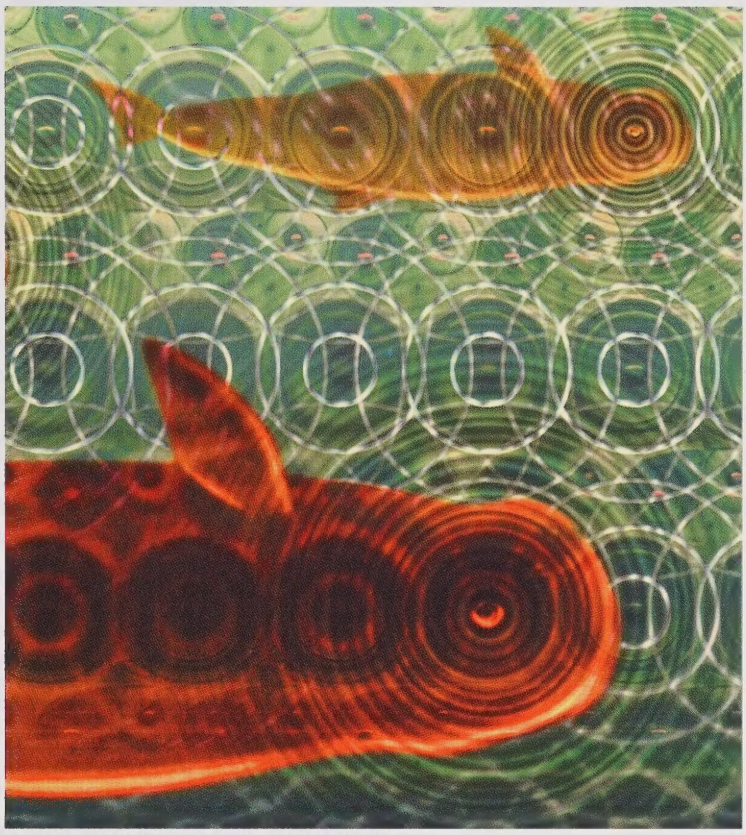

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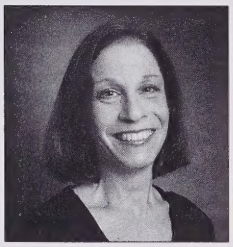
Editor's Note



Ed Keall, a ROM archaeologist, may not be as glamorous as Indiana Jones but he sure tells a better story. Imagine that in the 1990s, an archaeologist can make a wrong turn on a rugged road in Yemen and end up finding a structure that looks like Stonehenge constructed by people from an undocumented Bronze Age culture. As Keall recounts in our cover story, he was led to the site by a date-palm farmer, whose grove bordered the road. Of course the farmer had known about the remarkable site all his life. The find may place this Yemeni culture in the context of a global phenomenon, dating from the 2nd or 3rd millennia BC.

In another international archaeological coup, David Pendergast, best known to *Rotunda* readers for his Maya research in Belize, gives the first account of a new Taino site in Cuba. Working with Cuban archaeologists, Pendergast is exploring Los Buchillones, which may turn out to be that country's most important archaeological find. Their work in and around a shallow lagoon has turned up the remains of ancient Taino houses as well as an astounding number of well-preserved wooden artifacts. Los Buchillones was occupied by the Taino people for about 400 years. Therefore this site has great potential to show Taino culture as dynamic and changing, a vibrant presence in the Antilles.

To mark the appearance of the exhibition *Whales* at the ROM (on display until 4 January 1998), Hal Whitehead, a professor at Dalhousie University and an international expert on whales, has written a compelling story about the effects of extreme noise pollution on these wonderful creatures. Whales, as well as porpoises and dolphins, are most dependent upon their sense of sound. Autopsies on several whales that have been found mysteriously beached show that their eardrums were shattered. This led researchers to conclude that a whale that has been rendered deaf is as good as dead. Underwater tests by the Canadian and American navies and the Scripps Institute in California have been particularly destructive to whales. As Whitehead says at the conclusion of his article, "We should strive to roll back the acoustic fog that is descending on the oceans."

Roy Cole, a longtime ROM supporter, made a very generous donation of 36 firearms to the Museum. Some are important as pieces of decorative art and others for the history of their ownership. Blunderbuss pistols with bayonets show the extreme concern over personal protection in a crime-ridden society whereas knife guns and fountain-pen tear-gas guns are most noteworthy as gadgets. Like other material possessions, weapons tell much about their owners and the society in which they lived. Corey Keeble, the ROM's arms expert, shows some captivating examples of this important gift in his article.

I would like to draw your attention to a new column, "Practical Tips." In this issue, the subject is dealing with bugs in your cereal (and elsewhere in your home). Future topics will also concern the best way to handle other uncomfortable aspects of the natural world. For further information or to comment on this or other stories, please contact me by mail, fax, or e-mail. And please take some time to drop into the ROM web site. Finally, best wishes for the holiday season. See you in the spring.

Sandra Shaul

Sandra Shaul

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Minuet of the Canadians, *c. 1801*

Canadians Dance

TWO WATERCOLOURS OF DANCING parties in Quebec City at the end of the 18th century are rare treasures recently acquired for the ROM's Canadiana collections. Purchased with funds from the Jeanne T. Costello Trust, the works were painted in exquisite detail by George Heriot (1759–1839). Only a very few paintings exist that record entertainments in this country from such an early date.

Heriot was stationed in Quebec from 1791 until 1816, for much of this time serving as deputy postmaster general. He was an accomplished painter in watercolour, one of the finest to visit and record the Canadian scene. At a time when most watercolourists were concentrating on picturesque landscape, Heriot also took an interest in the human figure, costume, local customs, and social context. His fascination with this country and its history led him to publish two books on Canada, one of which was illustrated with 27 prints after his watercolours. The ROM's new acquisitions are two of his most famous works.

The *Minuet of the Canadians* is performed in a windowless interior lighted by a single and rather smoky oil-wick chandelier. Attention centres on two couples performing an elaborate dance. They are watched by a crowd of onlookers, among whom are pipe-smoking farmers, well-upholstered merchants, a mother with children, two blacks (presumably still slaves at this date), and assorted dandies. The artist has sketched a range of social types. Some figures are caricatured, such as the pot-bellied man profiled at the far right; others may be individual portraits, for example the white-haired man with glasses in the crowd at the left. The redcoat kissing his partner is probably a British officer. The music is provided by a fiddler and two tambourine players, one of whom kicks his tambourine with exuberance. There are also several amorous couples among the spectators.

The artist has paid special attention to the late-18th century style of costume. Women wear two-piece dresses. The tops are short gowns or caraco jackets with a peplum flip at the back. They are worn over a medium-full skirt or petticoat, accented by a wide sash. A scarf or fichu is crossed at the breast. This very practical style was an 18th-century mode of everyday dress rather than high fashion. Everyday garments were heavily used and not maintained so that few examples remain in costume collections. The women's dancing pumps have small heels and decorated insteps. Male dress is most notable for the broad-brimmed and plumed hats, a romantic flourish reminiscent of an earlier court style, and also perhaps associated with the fancy beaver

PHOTOGRAPHY BY BRIAN BOYLE

La Danse Ronde, ***1799***

hats favoured by some *voyageurs*.

In *La Danse Ronde*, country-dwellers perform a circular type of folk dance, accompanied by a single fiddler. Although the landscape is generalized, figures are observed in detail. Women's skirts are probably cotton, printed in stripes or small-figured patterns. The men's coats are belted with a variety of colourful sashes, and their stockings sport eye-catching stripes. The dancer at the left with his back to the viewer wears a painted caribou-skin coat with geometric designs, such as those described by Dorothy Burnham in *To Please the Caribou* (published by the ROM in 1992).

Both of these dancing scenes were reproduced as aquatint illustrations in George Heriot's *Travels Through the Canadas*, published in London in 1807. The prints simplified the costumes and updated them to suggest a neo-classical style, which had by then come into vogue. This editing has omitted or changed much of the descriptive detail seen in the original watercolour sketches.

MARY ALLODI
Mary Allodi is curator emeritus, Canadian prints, drawings, and paintings, Department of Western Art and Culture, Royal Ontario Museum

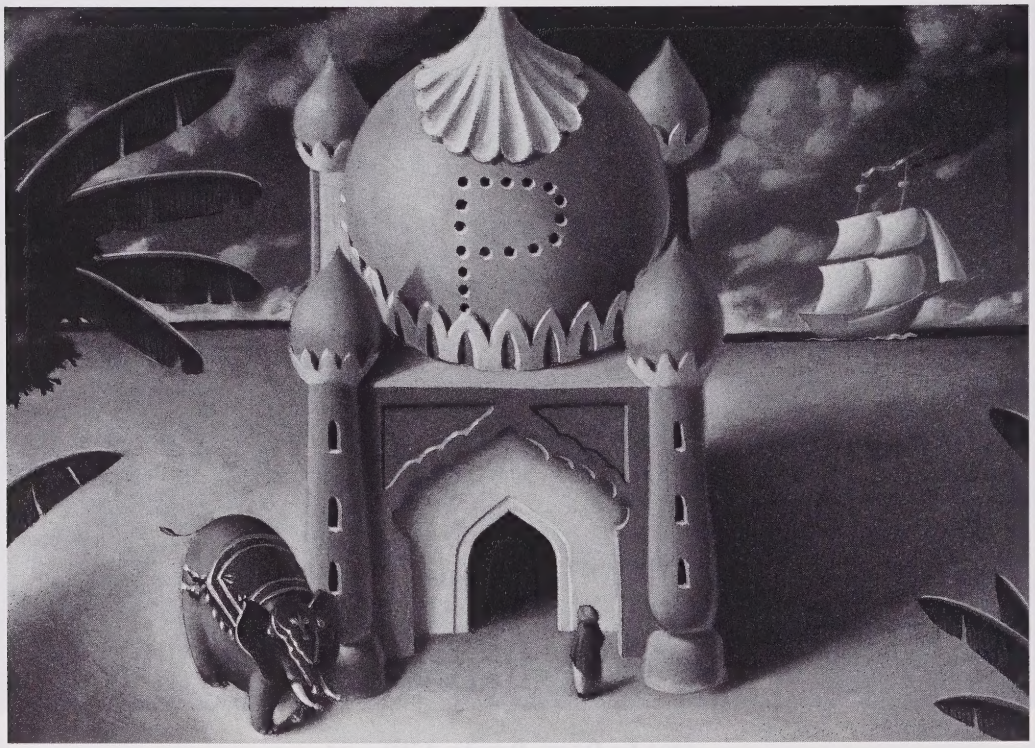
The Eager Beaver

THE BEAVER IS COMMONLY IDENTIFIED WITH BOTH THE Canadian natural environment and Canadian culture, two subjects that are also close to the heart of the Royal Ontario Museum. Call it serendipity that at the same time the Museum needed a good beaver specimen for display in the new Samuel Hall • Currelly Gallery, an appropriate gift was being sought to celebrate the 40th anniversary of the founding of the Museum Volunteers.

Martha and Richard Hogarth, two of the ROM's longstanding supporters as well as collectors of "beaverabilia" for about 30 years, heard about the ROM's quest for a beaver specimen. They were enthused about the project but also saw the donation of a beaver as the perfect way to honour the volunteers by using the analogy of the beaver as a symbol of industry and hard work.

Through the generosity and imagination of the Hogarths, a mounted beaver is posed before a chewn log in a case in the Currelly Gallery. The case publicizes the life science galleries on the Museum's second floor. And the Museum Volunteers have a lasting tribute to their invaluable work for the ROM.

SANDRA SHAUL
Sandra Shaul is executive editor of Rotunda *magazine*



Indians, history's most intrepid foodies, have been cultivating the pepper plant for thousands of years.

Pepper

INDIA IS EARTH'S SPICE BOX. CUMIN, coriander, cardamom, and the rest grew up in the hothouse of that sultry clime as if the gods were hoarding all their divine pleasures in one place. But in the beginning there was pepper, and the pepper was good, and the word was: sail the seas and pack your holds with black gold. The trade winds transported journeyers—explorers and merchants, priests and pirates—around the planet in search of pepper. The great era of exploration was founded on stuff that today sprinkles so casually from a shaker, we rarely give it a second thought.

The Indians, who have always been history's most intrepid foodies, have been cultivating the pepper plant for thousands of years, and possibly introduced the process to Java, when the great Buddhist and Hindu empires of Borobudur and Prambanan rose up at Jogyakarta in the 8th and 9th centuries. In any event, it was Java's pepper that brought the Dutch to make an empire of Indonesia in 1596 and battle for the priceless pepper monopoly for 200 years.

Alexander the Great has been credited with introducing pepper to Europe and launching the craze in Greece and Rome. More likely, it made its way from India to the Mediterranean on the early caravan routes, the first Asian spice to reach and galvanize the West.

Lending excitement to the gruel that fuelled the masses, masking rancid flavours, and to some extent acting as a prophylactic to microbial growth, it provoked an insatiable European appetite. The Romans under the Emperor Domitian created the spice market to accommodate the vigorous trade in peppercorns.

"Pepper is small in quantity and great in virtue," said Plato, understating his case. Ultimately, though, pepper's greatest importance in both ancient and medieval times, for well over 1500 years, was as currency, and it was a credit more powerful than gold: *Peppercorns—don't leave home without them.*

Both Attila the Hun and Alaric the Visigoth demanded ransoms for sparing Rome, to be paid, among other things, in peppercorns. In the Middle Ages, pepper could buy a week's work or a serf's freedom. Pepper could pay the rent or buy the land. You could pay your taxes in peppercorns. Pepper was the highlight of any respectable dowry. It was the best of inheritances. Among bribes, it was the offer you couldn't refuse. Christopher Columbus thought he was in In-

ILLUSTRATION BY GERARD GAUCI

dia consuming pepper when he was in the Caribbean eating chilies, and mistakenly put the "pepper" in chili pepper.

Impecunious nobles who married the daughters of nouveaux riches for their money were chided as "pepper bags." The families held responsible for assassinating a French count in 1107 were fined three pounds of pepper per year. Even death by pepper is said to have occurred, with the victim forced to swallow lethal amounts of the spice.

For a long time, Venice was the prince of pepper, dispensing it to a Europe that went through 6.6 million pounds a year. Then it was the turn of the Portuguese, who prospered with their cargoes out of Goa, and who gave way to the formidable Dutch, who wound up with Indonesia. The English formed the British East India Company not for the conquest of India, but to break the Dutch pepper monopoly. Eventually, pepper was seized and transplanted to the European colonies. The man who introduced it to the French West Indies was named, sublimely, Pierre Poivre.

Pepper remains the most popular spice on the planet. It comes from an equatorial vine, climbing as high as 10 metres and bearing clusters of tiny berries which are at first green, then red as they ripen, and finally black, when they are sun-dried. I am especially partial to the green or unripe peppercorn, usually pickled, but perky enough to nip at you. Mashed or whole, green peppercorns are the soul of a sauce. Some foodies sprinkle them, instead of capers, on smoked salmon; others fling handfuls on roast meats and grilled fishes.

What of the fashionable pink peppercorn? It isn't a proper pepper, but the fruit of the Latin American mastic tree. It comes freeze-dried or packed in brine, and imparts a spicy, floral flavour and aroma to soups and sauces. Nor, for that matter, is the Szechuan peppercorn really pepper but the seeds of the prickly ash tree, prized for their beguiling aroma and flavour. Only the diehard purist would object to using either instead of or in tandem with black and white pepper.

White pepper derives from the reddish ripened berry, only with the husk removed, leaving a whitish peppercorn. Its colour makes it a natural for pale sauces, but its surprising sharpness catches you in the throat. Black pepper derives from the near-ripened fruit, dried into little explosions of flavour that strike your palate up-front.

Exotic cuisines appreciate pepper. Almost all Indian cooks utilize mouthfuls of peppercorns, yet turn out dishes of such symphonic balance, their fire never overwhelms. The Chinese use pepper deftly, melding black and white pepper in hot-and-sour soups and zapping fried rices by combining ground and whole peppercorns. It's a mainstay of Cajun, that racy cuisine of the Louisiana folk descended from Canada's expelled Acadians.

Pepper belongs everywhere; in soups and salads, salsas and sauces, in stews and stir-fries, on roasts and grills, shellfish and fishes, fowl and meats and game. I hear rumours of the marriage of pepper and dark chocolate, and can hardly wait for the honeymoon.

All this leaves me wondering about the irony of the ancients and their pursuit of purseloads of pepper. Alaric the Visigoth walked away from Rome richer by a reputed 5000 pounds of pepper, but think about it: the poor guy had no access to even a single recipe like the ones below by Carol Clemens.

SEARED FOUR PEPPERCORN SEA BASS

Ingredients

- 30 ml(2 tbsp) each black and white peppercorns, coarsely ground
- 30 ml(2 tbsp) each red and green peppercorns, cracked
- 4 4 cm- (1½ inch-)thick sea bass steaks (about 225 g or 8 oz each), rinsed and patted dry
- 45 ml (3 tbsp) olive oil
- sea salt
- lemon wedges

Preparation

Combine the four peppers on a small plate. Press both sides of each steak into the mixture to create a complete crust. Heat the olive oil in a large heavy nonstick skillet over medium high heat. When hot carefully add the steaks. Cook about three minutes per side or until the sea bass begins to flake. Remove fish from skillet and transfer to serving plates. Sprinkle with sea salt and garnish with lemon wedges.

Serves 4

FOUR PEPPERCORN GOAT CHEESE BISCUITS

Ingredients

- 500 ml (2 cups) sifted all-purpose flour
- 15 ml (1 tbsp) baking powder
- 2 ml (½ tsp) salt
- 125 g (4 oz) goat's cheese
- 15 ml (1 tbsp) red peppercorns, cracked
- 15 ml (1 tbsp) green peppercorns, cracked
- 5 ml (1 tsp) white peppercorns, coarsely ground
- 2 ml (½ tsp) black peppercorns, coarsely ground
- 250 ml (1 cup) milk

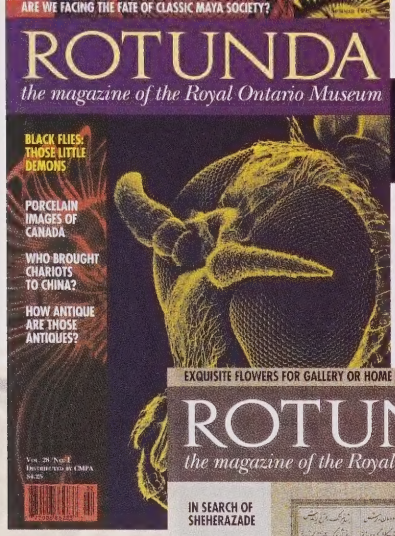
Preparation

Preheat oven to 230° C (450° F). In a medium bowl, combine the flour, baking powder, and salt. Add goat cheese and, using a pastry cutter or two knives, cut the cheese into the dry ingredients until the mixture is the consistency of coarse corn meal. Add peppers and stir to combine.

Make a well in the centre of the dry ingredients and add all the milk at once. Stir with a fork just until the mixture leaves the sides of the bowl and can be formed into a ball. Using two spoons, drop golf-ball-size pieces of dough on to a greased cookie sheet. Bake for 10 to 12 minutes. Serve warm.

Makes about 20 biscuits.

JEREMY FERGUSON
Jeremy Ferguson writes about food and travel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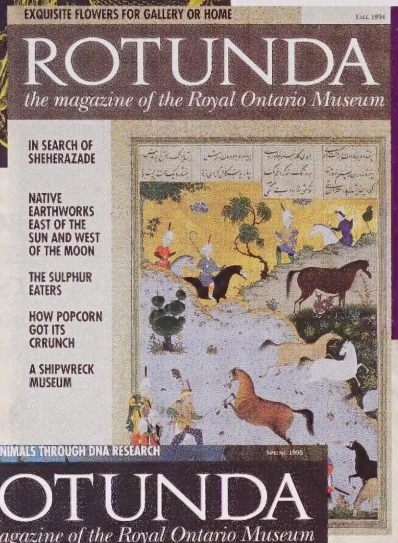
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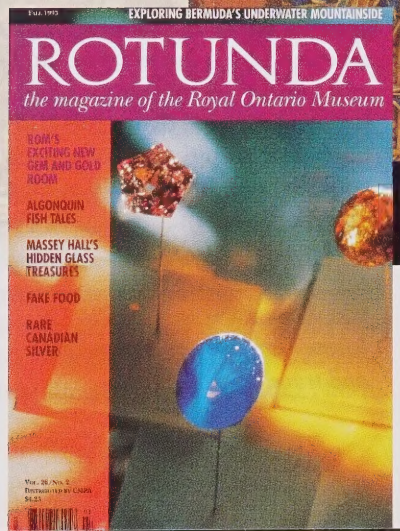
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Snug as a Bug

NOT LONG AGO MY KITCHEN HAD fester fever. It all started when I spotted one apparently harmless worm by the toaster. Before long, wiping three or four of them from the counter and flushing them down the toilet became part of my daily chores. Initially, I pretended this wasn't a problem. But after a week of eating at restaurants to eliminate the chances of mistaking a cream-coloured worm for a morsel of cereal, I crawled out of denial and took action.

I called in the exterminators. To prepare for their arrival, I was told to take everything out of the cupboards, throw out any food that appeared to be moving, and wash all surfaces with soap and water. Equipped with yellow rubber gloves and a protective baseball cap, I began the process. Too scared to look into the packages to determine their level of infestation, I chucked everything down the garbage chute: spaghetti, cereal, tea, flour, even a wrapped Toblerone chocolate bar I'd bought for a lonely day. My kitchen was now ready for treatment.

The next day a technician named Kelly arrived with a one-gallon tank slung over his shoulder and sprayed my cupboards with basudin FM, a residual pesticide that kills bugs on contact and remains active for two or three months to destroy any others that emerge from cracks and crevices. It's twice the strength of most bug killers available in hardware stores.

After Kelly finished, he ran his fingers through his hair, then looked at me. "Confused Flour Beetles," he said. He explained that although they start out as worms they metamorphose into small flat beetles. Before leaving, he warned: "Don't come in the apartment for four hours."

The next day I felt queasy. Originally I had planned to go grocery shopping and re-stock my cupboards but now I was worried that the pesticide would penetrate the food. Kelly told me not to wash the cupboards because that would disrupt the working chemical. That made me all the more uneasy. I began to wonder if I'd done the right thing by calling in the exterminators in the first place. I went to do some research.

It was comforting to discover that Confused Flour Beetles can be found in anyone's cereal. Yes, it's true, being cuckoo for Cocoa Pops can run the risk of infesting your kitchen, especially if you're not that cuckoo and only eat part of the box; by the time you go for another bowl, eggs may have hatched. After a five-day incubation period, twelve larvae hatch from each egg and cover themselves with food to avoid light and disturbances. They have 100

ILLUSTRATION BY CLIVE DOBSON

days to mature before they surface and transform themselves into small reddish-brown beetles.

Perhaps you've never picked up such an active box of food. Don't feel too lucky—it's likely the yummy bakery down the street or your favourite restaurant has served you larvae du jour. According to Agriculture Canada, Confused Flour Beetles account for 84 per cent of the insects found in flour mills across North America. Although they primarily attack milled-grain products like flour, cereal, and bran, they have been found in everything from chocolate to marijuana. So if the critters aren't destroyed in the grain elevator or food-processing stage, they'll show up in your cereal box.

Methods used to control infestation in grain elevators, processing plants, and cargo ships include washing out food-storage bins and using pesticides. Unfortunately, resilient critters are not always bothered by such efforts. Resistance to pesticides is common in pests, especially Indian Meal Moths, Red Flour Beetles, Rusty Grain Beetles and, of course, Confused Flour Beetles. Not to worry, though. The pests may be getting tougher but the food is still safe. Paul Kirkby, a food specialist at Health Canada, measures the number of extraneous materials, including insect and rodent fragments, in foods. Regulations call for no more than 50 fragments of less than 0.2 millimetres each for every 50 grams of product. To extract these tiny fragments Kirkby places the food in water or alcohol and the extraneous materials float to the top. He then strains them out of the solution to be placed under a microscope which has a magnified ruler inside its lens so the human eye can measure the specimens. Some of the material found includes rat hairs, fly eggs, maggots, and ant legs. Violation of Health Canada's extraneous material guidelines can mean a thousand-dollar fine or five years in jail. Kirkby inspects low-risk companies every 18 months and companies with past infractions every year.

Although these measures are taken, pests still show up in grocery stores. Al Dale, the manager of Loblaws at Broadview and Danforth, says when things come in from the warehouse he is always taking a risk because he can't tell if there are pests in the packages. To control the spread of pests he hires a pest control company to place non-toxic glue boards under the shelves. Mice and other critters stick to the board's adhesive surface. Glue boards are the most common method used in grocery stores but pesticides are sometimes used for cockroach problems.

Despite the widespread use of pesticides, not everyone recommends them. Dael Morris, an entomologist at the Royal Ontario Museum, truly loves bugs and would never destroy them with chemicals. If you want to avoid the exterminators, she advises you to leave a sample of your pest with security at the ROM staff entrance on the south side of the building. You should put your bug, preferably alive, in a pill vial with your name, phone number, and address attached. Or you can mail it. In that case, make sure it's dead and put some tissue in the vial for protection, then place the vial in a padded envelope addressed to Entomology at the ROM, 100 Queen's Park, Toronto, M5S 2C6.

Your pest will go to 207D, the entomology workroom. It will be placed on a counter beside bug books, glass jars, microscopes, and a Plexiglas ball containing two big black jumping spiders. Jumping spiders are Morris's favourite because "they're so cute." They're observant and earnest, says Morris, who often catches them watching her. Once she even interrupted the spiders by moving towards them while they were mating. So carefully, not to upset any natural occurrences, Morris will roll up her stained lab-coat sleeves, place your pest in a glass dish and put it under the microscope. She often starts by magnifying the insect 10.6 times, then increases the power to examine specific features for identification. With 10 years' experience and two degrees in entomology, she usually has an idea of the pest's identity even before her analysis. After seeing the critter magnified, she consults her bug books. Morris says understanding the natural biology and history of insects is the first step to knowing how to get rid of them. Once she has identified the pest, she calls the donor and tells him or her what to do.

The day of my visit, she identifies a carpenter ant. Her advice is: "Try to locate the colony, then spray it with soapy water. You'll have to find any damp wood in your house and varnish it so they won't be able to nest again." According to Morris, one of the best ways to kill bugs is with dishwasher detergent and water. On direct contact, a soapy mixture will kill anything from Confused Flour Beetles to cockroaches.

Morris is appalled that I called in exterminators for my Confused Flour Beetles. She says a pesticide was unnecessary. Morris calls my bugs *Tribolium confusum* and says all grain products run the risk of being infested with them. "This is normal; beetles recycle dead matter and therefore have a place in nature. As a part of a diet they aren't harmful, they must add protein." Morris feeds her pet turtle, Silverthorne, a beetle which is in the same family as my *Tribolium confusum.* Food for Silverthorne is found in a small, warm, well-lit room full of flies, beetles, and other species happily breeding in plastic containers. Silverthorne's beetles reside in a box full of bran. The turtle, who lives in the aquarium that sits beside the jumping spiders, likes to eat them in the worm stage before they grow their black shells. The worms move slowly and have thin, dark rings across their vanilla-coloured bodies. Morris takes one out of the bran, smiles at one of her colleagues getting his lunch from the lab fridge, and feeds her turtle.

It's true my beetles' life cycle is fascinating but they don't belong in my apartment. So I need to know exact details of what to do if they

show up again. Morris says I should first find the source and throw it out, then put any food that I suspect is infested in the freezer for two days. That will kill the bugs. If I do a thorough cleaning and seal all non-infested flour-based food in glass jars with rubber seals and metal closures, the bugs in my cupboards won't have a place to breed and will die in less than a week. Morris also recommends keeping a spray bottle of detergent and water on hand to squirt any pest I see.

Not surprisingly, most of Morris's bug colleagues are also against pesticides. Dr. Darryl Gwynne, an entomologist at the Erindale Campus at the University of Toronto, says, "Confused Flour Beetles don't carry germs. They won't harm you. If you can just hold out for a while, as long as your cupboards are clean, they will just die." He also mentions that *Tribolium confusum* are a hot item right now in labs for genetic testing because they're easy to breed. "Most entomologists would be fascinated to have one in their breakfast cereal," he says.

Remembering my fear of putting food in my cupboards after they were sprayed, I was almost convinced that bug lovers had better methods than bug bashers. I still went to get another opinion.

Charles Zubovits, a pesticide officer at the Ontario Ministry of Environment, has an office at Yonge and Finch where he answers inquiries from the public. He receives at least ten calls a day, often regarding the misuse of pesticides. "Mr. and Mrs. Joe Public must stop being so lazy and start doing research on their pests," he says. "The public thinks that the booga-booga man comes with his spray and fixes all their problems." Zubovits recommends people seek expertise on pests they have in their home by sending them to him or to the ROM. If they hire an exterminator, they should make sure the technicians have done the courses that grant them at least a class three license. Class one or two is even better.

Zubovits says the pesticide sprayed in my apartment is "absolutely wrong," and that a chemical applied with a drinking straw type of nozzle would get into cracks and crevices better. By spraying directly into the crevices food isn't exposed to the pesticide. He isn't against pesticides, he just believes they should be used like medicine, only when needed and only as prescribed.

If I went to eat a bowl of cereal tomorrow morning and found evidence of another infestation I wouldn't call the exterminator. I would send a sample to the ROM and find out its life cycle so I could go on a natural path of elbow grease and sealed glass jars. This may be more work and the little intruders might be around longer, but there won't be pesticide residue. That way, in my chemical and pest-free apartment, I can be snug as a bug.

C. Leigh Felesky
Leigh Felesky recently graduated from the Ryerson School of Journalism.

ROTUNDA
the magazine of the Royal Ontario Museum

In the Spring 1998
issue of *Rotunda...*

Inside Wedgwood

By
Lord
Wedgwood

Royal Ontario Museum
100 Queen's Park
Toronto, Ontario M5S 2C6
(416) 586-5590

1997 FALL EXHIBITIONS

ARTHUR SHILLING Saturday, October 4 – October 23
Selected works released from the Estate of the artist

RENEE DUROCHER Saturday, October 25 – November 13
Archeaology of the Soul — mixed media works on canvas and paper

GEOFFREY ARMSTRONG Saturday, November 15 – December 4
Patterns in Time, Georgian Bay — new paintings

MICHAEL FRENCH Saturday, December 4 – December 20
Collection of Minatures — recent acrylic paintings

ROBERTS GALLERY

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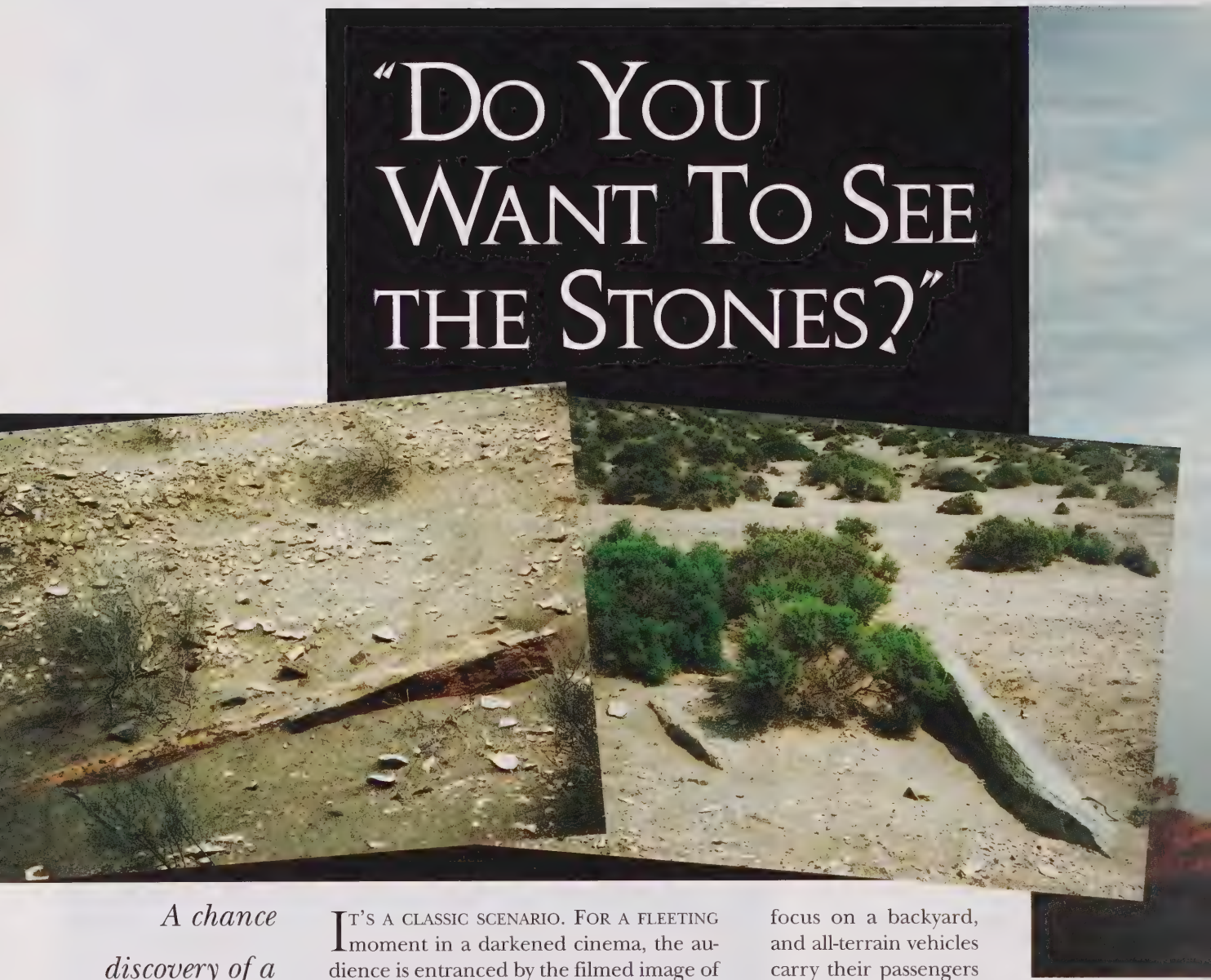
"Do You Want To See the Stones?"



A chance discovery of a Stonehenge-like structure reveals a Bronze Age culture in Yemen

Edward J. Keall

It's a classic scenario. For a fleeting moment in a darkened cinema, the audience is entranced by the filmed image of a magnificent but sometimes terrifying sand desert where an archaeologist achieves his life-long quest—the discovery of tangible proof of a legendary site.

But at the end, when the credits run, the screen goes blank, and the lights are turned on, it is easy to dismiss the film as enjoyable but fanciful, a romantic notion from a bygone era when dashing young men wore silk scarves as special-expedition gear by day, and donned tuxedos and told fascinating stories over drinks at night. Since World War II daring archaeological exploration has been gradually replaced by technological gadgetry. Satellites can now focus on a backyard, and all-terrain vehicles carry their passengers with ease across mud flats and sand dunes. How can there possibly be any more dramatic discoveries when everything is so accessible?

Seemingly at odds with this perception of modern exploration was the remarkable press coverage last year, especially in the *Los Angeles Times*, of an American-sponsored project in the Arabian desert. It related to the discovery of a "lost city of the Queen of Sheba." Consequently, casual conversations with colleagues last year were more likely to raise the question "How about that city in the desert?" than "How about those Jays?" Unfortunately, the dis-

Ed Keall is a curator and head of the Department of Near Eastern and Asian Civilization, ROM

Led by a local farmer, Ed Keall, a ROM archaeologist, came to an area (left) covered by flaked stone and two large intact stones. Upon closer examination (middle), he assumed that this was a quarry site. Then he saw the Stonehenge-like structures (below). This was no quarry.

covery of this site has been sold with unjustifiable hype. When the press release was issued, the site was given star status, leading readers to believe (unjustifiably) that an unprecedented discovery had been made.

Archaeologists find such sites all the time in the Middle East. Together such finds contribute to the greater understanding of the known ancient civilizations. How then to justify the publicity given recently to the latest discovery in Yemen by a team from the Royal Ontario Museum? The find was an unknown Bronze Age culture identified by the presence of free-standing megaliths—described as a "Stonehenge"—set in what is now a barren scrub and dune landscape, near the Tihamah Red Sea coast of Yemen. And the discovery was made completely by accident. It is the accidental nature rather than the discovery itself that has caused amazement.

The ROM project had operated in the general area of the giant stones for more than a decade without ever having known of their existence. In 1985, an Italian archaeological team searched the region specifically for this kind of remnant of ancient civilization, coming close—within 5 kilometres. Ironically, the ROM team was led to the site by a local farmer who had known about these stones all his life. It was only the outside world that did not know about them.

PHOTOGRAPHY BY ED KEALL

While the site was not news to the locals, the attention the megaliths received from the ROM expedition was quite novel. Young men rode out on motorcycles to observe with curiosity the latest antics of the Canadian Archaeological Mission. "How did you know that this place existed?" they asked. "Did you have maps?" They stared in fascination as student bone specialist Karen Kisiel and Yemeni government archaeologist Abdul Habib carefully articulated the fugitive traces of infant bodies interred beneath giant stone markers dating from sometime around 4000 years ago.

The primary purpose of the Museum's mission in Yemen has been to define the development of Zabid, a medieval Islamic university city with an international reputation for scholarship. Zabid was also an administrative centre and a market city with merchants who participated in the Indian Ocean monsoon trade and who had contacts as far away as China. Her wealthy citizens made charitable donations and formed foundation trusts in support of the city's educational institutions.

"How did you know that this place existed?" asked young men on motorcycles

In March 1997 the mission set out to investigate the settlement of the port al-Fazzah, which purportedly served Zabid's trade activities in the 9th and 10th centuries. We learned that the port settlement of al-Fazzah was little more than an extensive village site and never a permanent home for wealthy merchants. Our research progressed more quickly than expected and when the monsoon winds of 1997 began to pick up strength, further work became intolerable. So abrasive were these winds that a year's normal damage occurred in an exposed trench overnight. The decision was taken to abandon camp and to resume a program in the seclusion of the Zabid citadel.

The winds had been exceptionally strong inland as well during those few days. Returning to base with a truck piled high with equipment and workmen, it was difficult to follow the right path through the dunes because the traces of our earlier tracks had been blown away. On one occasion the truck came dangerously close to toppling over at the soft edge of a dune. So, on the next trip to pick up more equipment, I chose to follow the longer route that goes through extensive plantations of date palms that shelter the track. It is a spectacularly scenic route, but one must pay attention to twists and turns, so as not to take the wrong fork and end up in someone's front yard.

There is a Yemeni expression that says this Tihamah coastal area is all roads (al-Tihamah turuq). In the scrubby area on the west side of the date groves, and not far from the al-Fazzah camp, I simply took the

Next to the standing megaliths were smaller ones that had fallen (left). Beneath one of these (middle) a cache of tools (below) was found, including two copper dagger blades, two axe heads, two razors, and two javelin points.

wrong fork. However, when I noticed potsherds on the ground I stopped to examine them. This is the way we have successfully built up over time a picture of settlement in the study area. From this kind of evidence we can quite comfortably date each site. This site turned out to be 13th century, and I later realised that it had been previously recorded in 1983 during one of our early surveys in the region. I had not recognized it because its appearance had been changed by the shifting sand and expanding date grove.

A farmer emerged from the nearby grove to ask what I was doing. "Archaeology," I said. "How old is all this?" With confidence I stated "13th century, from the time of the Banu Rasul." "How do you know all this?" asked Salem Hassan. "Well, you are a farmer and know all about date palms; I am an archaeologist and know all about pottery." This seemed to satisfy him. "Do you want to see the stones, then?" I reflected briefly upon all those times that I had been taken to see meaningless squiggles on rocks or distorted shapes that looked like something but were really nothing at all.

Yet something persuaded me to go this time. We drove half a kilometre farther into the dune scrub where I was amazed to see an extensive scatter of flaked stone covering an area more than 200 metres long.

Stones are normally not found at all in this dune country. Two long slabs lying flat on the ground made it look for all the world like a quarry site, presumably at a shallow rock outcrop. The pottery on the ground was quite different from that of the nearby 13th-century site. I knew immediately that it was pre-Islamic, as well as quite a rarity in our study area.

I had often wondered why we did not uncover more evidence of pre-Islamic settlement in the area. Thus I was intrigued by the idea of a pre-Islamic stone quarry. We know of an Abyssinian invasion of Yemen in the 6th century AD when rival powers contended for control of the Red Sea trade routes. The existence of a quarry would help to fill a serious gap in our knowledge about the region before Islam. Salem Hassan waited patiently while I completed my recording and then asked, "Now, do you want to see the big stones?"

"Now do you want to see the big stones?" asked the farmer

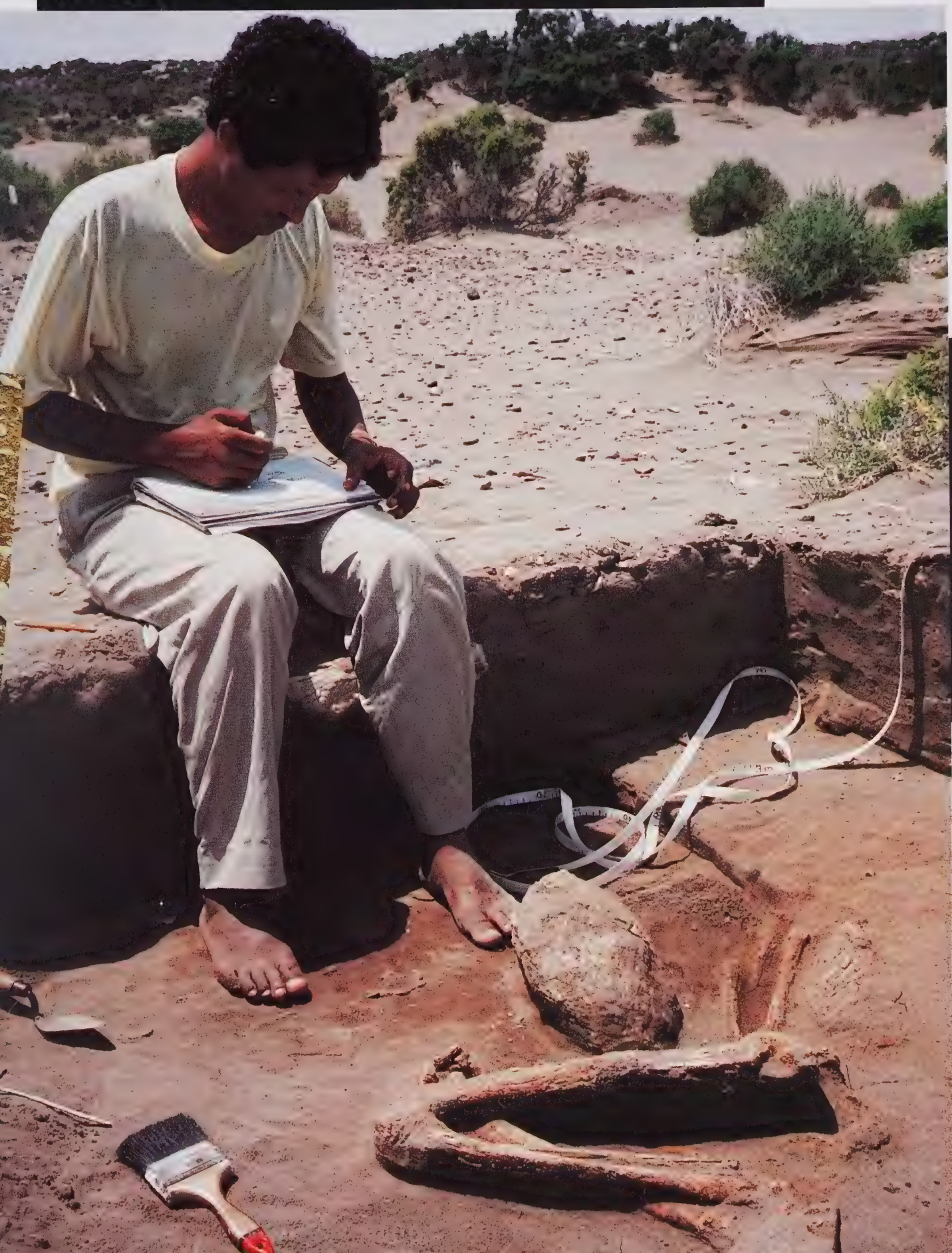
We walked another half kilometre from this point through the dunes. I was even more surprised to see giant stones of granite standing up in the air, megaliths weighing twenty tonnes or more, three metres high, a metre wide on each side. The source of these giant stones was either the Surat mountain chain some 50 kilometres away, or the off-shore volcanic islands to the west that one could sometimes see silhouetted against the setting sun. Either way it would have been a formidable effort to transport these stones, by dragging them on a sled over rollers or by floating them on a raft across the sea.

Right on the spot I resolved to transfer the entire ROM operation to this new site of al-Midaman to investigate the pre-Islamic facet of Zabid's countryside. Bedding, tents, kitchen equipment, theodolites, specialized workmen, shovels, buckets and wheelbarrows, and personal belongings, were all ferried back from Zabid or up from Fazzah over the course of the next few days. We became the entertainment of a lifetime for the entire district as we started our investigations of the megalith culture.

The long fallen slabs on the quarry site quickly proved to have nothing at all to do with stone cutting. Traces of a child's skeleton were found beneath the fallen ends of two slabs, which were now called commemorative monoliths. There were no burial goods yet we did not discount a sacrifice. Out amongst the dunes where there were vast scatters of potsherds, we tried to define the settlement of the people who had erected these commemorative monuments. It was a frustrating exercise because the area has been exposed in part for thousands of years, and covered up sometimes by shifting dunes. Much was abraded; the surface deflated. Pottery-lined fire pits were about the only consistent remnant of living activity. Surface finds tended to be the best recoverable material. They included masses of pottery fragments, obsidian (volcanic glass) tool blades, scraps of copper pins, and carnelian beads.

With no easy means to define the nature

Piles of flaked stones were found in widely separate parts of the site (left and middle). Under one pile, the skeleton of a man was found. Abdul Habib, a Yemeni government archaeologist (below), sketched the remains.



of the settlement, I decided to focus on the standing megaliths. To this point they had been avoided, because of the danger of their toppling, and out of academic etiquette about treasure hunting too soon. Alongside the giant stones, below ground, there were other smaller ones. Some of them were just lying there on their sides after having fallen in the sand a long time ago. By chance, one produced pay dirt. A cache of tools had been carefully embedded beneath it. The tools included two copper dagger blades, two axe heads, two razors, and two javelin points.

Further exploration may place this culture in the larger context of a global phenomenon prevalent in the 3rd and 2nd millennia BC when people felt the need to express themselves by setting up giant monuments of stone

These instruments of cutting and chopping were grouped around a large lump of untrimmed obsidian that clearly was a votive offering of some significance, commemorated by the emplacement of a massive monolith above it. There were no human bones visible. The idea of an Abyssinian phase of occupation had long since lost credit. Stone artifacts and copper tools put us back into the early Bronze Age at least, perhaps close to 2500 BC. The stone-tool industry is a technological survival from the neolithic period, and one may speculate about the possibility of a culture much older than 2500 BC.

While exploring farther in the duneland, it became apparent that there were consistent, though inexplicable, traces of flaked stones in widely separate parts of the site. The scatter patterns suggested that the flakes were the result of the slow spalling of single stones caused by the salty abrasive winds that blew in from the Red Sea. While the excavation of most of these piles turned up nothing at all, one was found with a male skeleton beneath it (no grave goods); and others had layers of carbon beneath them, which could indicate commemoration by fire. It was all quite mysterious.

So we returned to the so-called quarry site to investigate the origins of the spalls of stone. Surprisingly, at the west end of the mound, a large building was found to be the source. The flakes were from disintegrated stones that had been part of the building's original walls. Mostly foundation stones were intact below ground. There was no indication of the building's use. It was devoid of objects. But at the bottom of the footings, dragged into place inside the original foundation trench, were monoliths of the kind associated with the infant burials. The builders clearly had made good use of these slabs, with the implication for us that the building represented a more recent phase of occupation when the significance of the monoliths had been forgotten, or when they were being deliberately destroyed. The numerous disarticulated bone fragments were probably from the original commemorative burials, and were disturbed when the slabs were pulled into place.

How far apart in time are the two phases of occupation at al-Midaman? Were the megaliths associated with the large building? Were there more than two phases? Do the fire pits and the pottery date to the time of the megaliths? To answer such questions more work is required.

How is a newly found culture defined? Obviously the definition starts with facts pieced together from bits of found material. What types of material do researchers look for? In the Middle East, as in many other parts of the world, pottery is very important. While surveying Yemen, pre-modern cemeteries have been excellent locations for finding pottery on the ground. There are two reasons. First, the sites of ancient settlements are often used as cemetery grounds because the land is not suitable for agriculture. Second, in the process of digging the graves the ground is disturbed; sometimes older pottery is thrown to the surface. Other remnants of a settlement may also be used to make the grave. To my surprise, broken monoliths can often be found in the local cemeteries.

In the future, we will conduct foot surveys on a systematic basis rather than leaving it to fate to direct us to the right fork in the road. The seemingly hostile and uninhabited scrubland will become

A modern burial in Yemen echoes the form of the mysterious site found by ROM archaeologists. The horizontal blocks are made of post-1980 concrete, however, the monolith dates from the time of the ancient culture, about 2000 BC.

the main focus of our attention, and we will scour the ground for obsidian chips and other significant small finds besides pottery. This will provide a whole new dimension to the Zabid Project, forcing us to examine what role these people played in the region nearly 3000 years before the development of the Islamic university city of Zabid.

Who were they? What did they farm? Was it a subsistence existence? What did they do besides drag enormous stones around the landscape at great effort? Who paid for that effort? If they had surplus income, how did they get it? With what other groups did they have relations? Did they use incense (from the other side of Yemen)? If they did, were they somehow part of that still poorly defined phase of ancient history when Old Kingdom Egyptians had such a strong interest in the land of Punt, the source of their incense?

Further exploration will reveal an individual culture for which there is otherwise no record. Yet it may also place this culture in the larger context of a global phenomenon prevalent in the 3rd and 2nd millennia BC when people felt the need to express themselves by setting up giant monuments of stone. ❦

PRESENT YOUR ARMS

From elegant to odd, guns are not just weapons

K. Corey Keeble / Photography by Brian Boyle

GUNS ARE MUCH MORE THAN WEAPONS. THEY can be remarkable examples of applied art, indicators of social trends, and models of innovative technology. In 1996, Roy G. Cole, a former trustee of the Royal Ontario Museum, continued his tradition of support for the institution by donating 36 firearms and accessories that enhance the quality and scope of the collections.

The examples illustrated here provide some sense of the diversity of purpose, design, and technology associated with firearms. Sporting arms, made for the British monarchy and aristocracy by highly respected gunsmiths such as John Twigg and his rival, the Swiss expatriate Durs Egg, were sometimes used for shooting but at other times served only as prized decorative works of art. Exquisitely crafted British arms were matched or excelled by those created by virtuoso French craftsmen such as Nicolas Noel Boutet, perhaps the greatest gunsmith who ever lived. Menacing-looking guns, from 18th-century blunderbuss pistols with bayonets to 20th-century semi-automatic pistols, were designed mainly for personal protection. Whatever the original intent for the creation of such quirky arms as a fountain pen tear-gas gun and a knife gun, they are now amusing novelties.

The pieces donated by Roy Cole can be appreciated in a variety of ways—as works of art, craftsmanship, and design as well as indicators of social prestige and technological development. They are cultural treasures of international importance.

K. Corey Keeble is an associate curator in the Department of Western Art and Culture, Royal Ontario Museum

Flintlock Sporting Gun
1789–1790
by Durs Egg (1745–1831)
Swiss

Egg arrived in London in 1772 and quickly became the favoured gunsmith of the aristocracy. The Prince of Wales, later George IV, was a patron. This double-barrelled shotgun carries the triple-feather motif of the Prince of Wales inlaid in engraved silver by silversmith Mark Bock. It is the first firearm with English royal provenance in the ROM's collections.

Its design is based on the neoclassical style of the late 18th century where decoration is subordinate to balanced proportion and clean line. For example, the natural tones and texture of walnut have been harmonized with the graceful sculptural curves of the stock. Small touches of gold decorate the barrels, and the lockplates and cocks have tiny gold sculptures of birds and dogs. There is no evidence that this gun was ever fired. It served primarily as a beautiful piece of decorative art.

Sporting Rifle
c. 1779
by John Twigg (1732–1790)
English

In its form and technical features, this rifle shows the influence of contemporary German sporting rifles. This is particularly evident in the shape of the barrel and of the stock with its sliding patch box. The thick, sectioned, wooden oval around the trigger guard is not only another sign of German influence, it is a feature that occurs on some of the sporting arms of the Packington Hall collection of the Earl of Aylesford, and so it may have been part of that collection at one time.

While there is a clear influence of German technology, there is also an obvious association with English rococo furniture. This is most notable in the lush low-relief carving of an asymmetrical shell behind the barrel tang and in the decoration of engraved scrolls and flowers on the steel buttplate. The relative plainness of the overall design is relieved by harmony of proportions, the use of good materials, and by precision of artistry and craftsmanship.

Pair of Flintlock Pocket Pistols
c. 1805
by Nicolas Noel Boutet (1761–1833)
French

THE DECORATION ON THESE PISTOLS IS CLOSELY RELATED TO A BOUTET CARBINE PRESENTED BY the Emperor Napoleon to General Count Rapp in 1809. It is now in the collection of the Musée de l'Armée in Paris. American scholar Herbert Houze has suggested that the ROM's pistols were likely a gift from the Emperor to his sister Marianne Elisa Bonaparte (1777–1820).

The Museum's pistols have ebony grips with inlaid engraved gold panels in the form of dragons combined with foliage and rosettes. Exquisite engraving appears on most other parts of the guns, including miniature seascapes and landscapes on the steel mounts behind the barrels. The powder pans are lined with gold.

Box-lock Flintlock Pistols with Brass Blunderbuss Barrels
c.1790
by J. & W. Richards
English

BLUNDERBUSS PISTOLS WERE COMMONLY USED WEAPONS FROM THE EARLY-17TH TO THE EARLY-19th centuries. Also known as musketoons and boarding pistols, they normally had brass barrels and flaring muzzles, an aid to loading. The pistols were originally produced for the army and navy, but are best known as civilian weapons used by travellers and homeowners to protect themselves and their families and possessions. Blunderbuss pistols are also noted for their gadgetry; the ROM pistols have spring-mounted folding bayonets.

Tear-Gas Gun in the Shape of a Fountain Pen
1920s to 1940s
The Lake Erie Chemical Company
Cleveland, Ohio, American

WHAT YOU SEE IS NOT NECESsarily what you get. In its heyday the fountain pen was as much an icon of fashion and social status as an instrument for writing. For purposes of personal protection—and for the sake of sheer novelty—tear-gas guns, the forerunners of MACE, were sometimes disguised as stylish fountain pens. They contained cartridges of gas under pressure. Their range was short, but potentially highly effective. This kind of proto-James-Bond gadgetry added a new dimension to the maxim that the pen is mightier than the sword.

Knife Pistol
c. 1870
French or Belgian

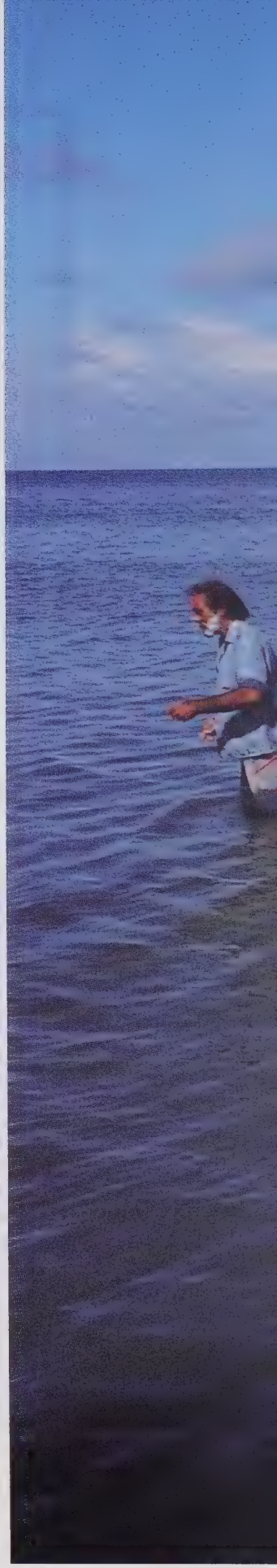
THIS CURIOUS WEAPON HAS A STEEL FRAME WITH BONE SIDEPLATES. THE FRAME IS TURNED down at the back to form a short grip; the barrel and hammer are at the top right of the frame. A folding knife blade is located at the right of the barrel and, under the frame on the left side, there is a folding corkscrew, which when unfolded serves as the trigger. When pressure is applied, an oval spring-catch on the left side of the frame opens the action at the rear, causing the breech end of the barrel to swing upwards for loading.

Knife pistols were a continuation of a fascination with combined weapons that can be traced back to the Middle Ages and the Renaissance. Their usefulness is questionable; they are of greater interest and appeal as wonderful inventions.

Up from the Shallows

A look at the ROM's first archaeological excavation in Cuba

David M. Pendergast



PHOTOGRAPHY COURTESY DAVID PENDERGAST

Buried up to our knees in warm clay, archaeologists from the Royal Ontario Museum are helping to unearth the prehistory of Cuba. Through contacts and discussions that have developed since November 1994, we are now able to examine the evidence of ancient Taino life that lies concealed in a site called Los Buchillones.

Los Buchillones is no ordinary place. Until André Bekerman and I journeyed this year from the chill of a Toronto February into the warm weather and even warmer friendships of Ciego de Avila province on Cuba's north coast, I would have said that the story of how we came to develop the project was nearly as interesting as the site itself. Now, after an almost laughably brief but staggeringly productive period of fieldwork, I know better. We are already sure that Los Buchillones is among Cuba's major sources of archaeological information, and in the end it may prove to be the most important site in the country. That may sound like an archaeologist's typical braggadocio, but in fact there's no doubt that with every trowelful of earth, or rather mud, we have the chance to add further colour to the emerging picture of Cuba's rich aboriginal heritage.

The first look at Los Buchillones came as the 1980s drew to a close and, as usual in a land beset by blockade-generated economic problems, the look was a tiny one indeed. Dr. Jorge Calvera, who now co-directs the project with me, was barely able to scratch the site's surface in 1989, and when he did so he concentrated, as any sensible digger would, on a large open seaside area in which misshapen mounds of earth indicated the presence of ancient houses. His digging showed that the site was a rich one, potentially capable of adding significantly to knowledge of the Taino past, but with limited resources he could reveal no more than hints of how much richness the site might contain.

In the same period, Nelson Torna and Pedro Guerra, fishermen from the nearby village of Punta Alegre, were learning about the site not only by surface collection along the shoreline but also by casual examination of the shallow lagoon at the site's western end. It was Nelson's and Pedro's work, which has always been marked by a highly commendable concern for the site's preservation, that brought the full potential of Los Buchillones to the attention of Cuban government authorities and then of the ROM.

We had our first look at the site in 1994 (ROM *Archaeological Newsletter* Series II, No. 55), and then struggled for two years to

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Cuban and ROM archaeologists stand in a lagoon measuring house posts located at the most important prehistoric site ever found in Cuba. Dr. Jorge Calvera, co-director of the project, is at the far left. Pedro Guerra (second from right), is one of two fishermen who brought the site to the attention of the Cuban government. André Bekerman of the ROM is at the far right.

Nelson's and Pedro's continual checking of the lagoon had brought to light a wealth of archaeological material that included an astoundingly large number of wooden artifacts

sort out tactics critical to the work. Now we have put those tactics to the test, not on dry land but in the west-end lagoon. Although some parts of my 36 years of work in the Maya lowlands of Belize have helped to prepare me for the project, I freely admit that in jumping the few kilometres of water that separate Cuba from the Yucatan Peninsula I have in some respects made a far larger leap than I anticipated.

Why was Nelson's and Pedro's work so important to our project? Because their continual checking of the lagoon had brought to light a wealth of archaeological material that included an astoundingly large number of wooden artifacts. From the lagoon-bottom muck the two had rescued fragments and nearly whole specimens of shallow oval bowls or trays, often with decorated handles at their ends; portions of *duhos*, the curious curved stools that served as badges of office among the Taino; handles that once held stone axe heads, as well as one that retained its axe head, plus another haft with a stone chisel in place; carved and plain pins, including one that closely resembles a rope-making tool called a fid; a hook almost identical to modern ones that I have seen in the Maya area, used for suspending things from rafters; and, perhaps most striking of all, a variety of figurines that once boasted shell-inlaid eyes, mouths, and other features. The 193 artifacts, mostly of lignum vitae, more than quadruple the total known from Cuba, and equal or exceed the total from all of the Antilles.

When we began excavation we had two main scenarios in mind as possible explanations for the presence of so many wooden artifacts, together with large quantities of pottery and a moderate number of shell and stone objects, beneath the waters of the lagoon. The first was that the lagoon was a sacred spot into which the site's ancient inhabitants cast their most precious possessions, but the variety of non-ceremonial artifacts argued against this view. The second, which seemed much the more plausible, was that some catastrophe, perhaps a hurricane, had created a lagoon where once there was dry land, so that what Nelson and Pedro had recovered represented just the tip of a great concealed

Plastic-sheet-and-sandbag dams were built (facing page) and then the enclosed area was pumped (above) so that researchers could explore beneath the mire of the lagoon.

storm-created time capsule. As is usually the case, our fieldwork showed that neither of these explanations is the right one, and as always the correct answer turns out to be much more complicated than our single-cause tales.

To reveal the correct explanation, we needed to approach the lagoon bottom not as an underwater locale but rather as a wet site, which meant that we had to block the half-metre-deep water. Because we had no idea what lay beneath the mire, we had to find a way to enclose an area without driving caissoning into the lagoon bottom. After we had rejected some possible solutions as too complicated and/or too costly, André and I arrived independently at the same solution one evening: sandbag-and-plastic-sheet dams. Admirably low-tech and absolutely without risk to artifacts buried in the bottom mud, such dams would, we hoped, give us the open section of damp site we needed. The approach seemed workable, but hardly foolproof, given that as far as we knew it had never been used in a current-plagued coastal lagoon before. With the blind faith that is so easily born of absence of knowledge, we arrived at the lagoon armed with 500 empty sandbags, two huge rolls of polyethylene sheeting, two pumps, and enough confidence that we would overcome all obstacles.

With shoulders aching from the task, we filled all 500 bags and moved each one, now weighing 40 kilos, at least four times, then acquired 200 flour sacks with about 80-kilo capacity and moved each one of them four times. (I am leaving out the stories I might also tell of working with 30 metres of plastic sheeting in a high coastal wind.) Finally we had in place two dams that enclosed about 470 square metres from which we could pump the entrapped water.

With the first pump humming reassuringly, we began to see the water level drop, and within two hours could walk almost dry-shod (if you disregard the mud and organic muck) across the lagoon bottom. The sweet smell of our success was, however, soured a bit by seepage through both the sandbar at the south and the narrow strip of land between the lagoon and the sea.

Creation of a sump in the deepest part

As we dug deeper the seepage along the top of the clay that underlies the sand turned to tiny streams, then runnels, and finally torrents. Excavation became a constant struggle

of the cleared area allowed us to pump periodically as work progressed, but every morning saw us confronted with the need to pump for two hours or more to re-empty the area. As we dug deeper the seepage along the top of the clay that underlies the sand turned to tiny streams, then runnels, and finally torrents. Excavation became a constant struggle, in which we finally learned to use the inrushing water as an occasional ally in clearing the areas we wanted to see. Despite the rigours and frustrations of the work we managed to trench across the full width of the lagoon, and to get to the base of the cultural deposit in all but a limited area where the water flow stubbornly refused to give us even a few moments' respite.

As a result of the digging we are now fairly sure that most, if not all, of the cultural material in the lagoon arrived there long after Taino times. The greatest weight of evidence supports the idea that sea action, especially during the past half-century, has removed the material from other locales and deposited it in the lagoon entrance and adjacent areas. But this raises two more questions: why are almost all of the wooden artifacts so well preserved if they have been buffeted about by the sea during the past 50 years, and where were they before they came to rest in the lagoon?

At the beginning we assumed that the artifacts owed their excellent state of preservation to the protection offered by lagoon-bottom clay that kept them out of contact with oxygen, and sealed them against other changes as well. This easy explanation seemed to have been demolished by the evidence we were recovering, until we expanded our focus to the open sea itself. The lagoon is today separated from the sea by a sandspit that is less than two metres wide in a number of places, but we know from examination of 1950s aerial photographs that almost 50 metres of the site front have been eaten away since construction of a breakwater, several kilometres east of Los Buchillones, altered current flow and wave action along the entire embayment in which the site is situated.

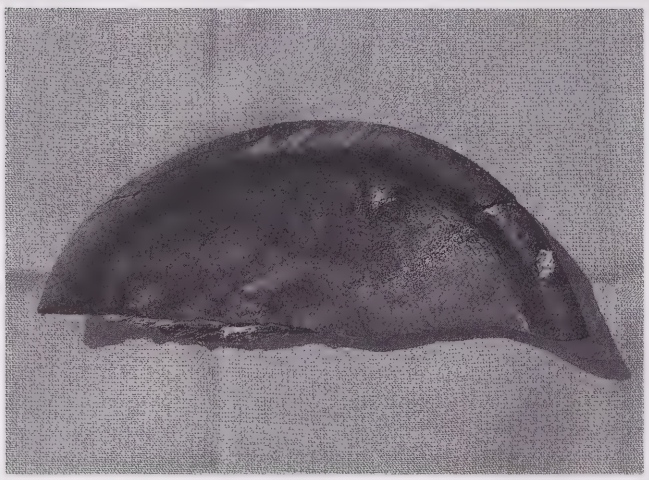
As we turned our explorations to the sea we were guided once more by Nelson's and Pedro's observations, which led us to discov-

er 17 groups of house posts, all in the same state of preservation that characterises the wooden artifacts. The proximity of some of the houses to the lagoon makes it very likely that the lagoon's archaeological riches derive from the housing area, and the presence of structural wood in our excavations appears to confirm the suggestion.

The post groups, which generally reflect the Taino oval-house shape reported by 16th-century Spanish invaders, are unique in the Antillean archaeological world. Where we were able to examine the posts, we found production marks characteristic of ancient axe-work. Perhaps because I have worked so long in a place where perishable things are almost never found, the portable wooden objects give me a feeling of a closer link with the past than I feel with pottery or stone. The feeling is even stronger when I see on the house posts every mark of the woodworker's stone axe, almost as clear today as when the tree was felled and stripped of its bark.

Although our work in the lagoon added only 14 items to the inventory of small wooden artifacts, it also yielded two nearly complete posts plus a third with a top fork typical of beam-support members that I see frequently in modern Maya house construction. Such pieces might have come from houses that once stood where the body of water now lies, but it is much more likely that they were heaved into

Working in the muck (facing page), researchers excavate the south side of the lagoon. (Above), A few of the many wooden artifacts found by Nelson Torna and Pedro Guerra.



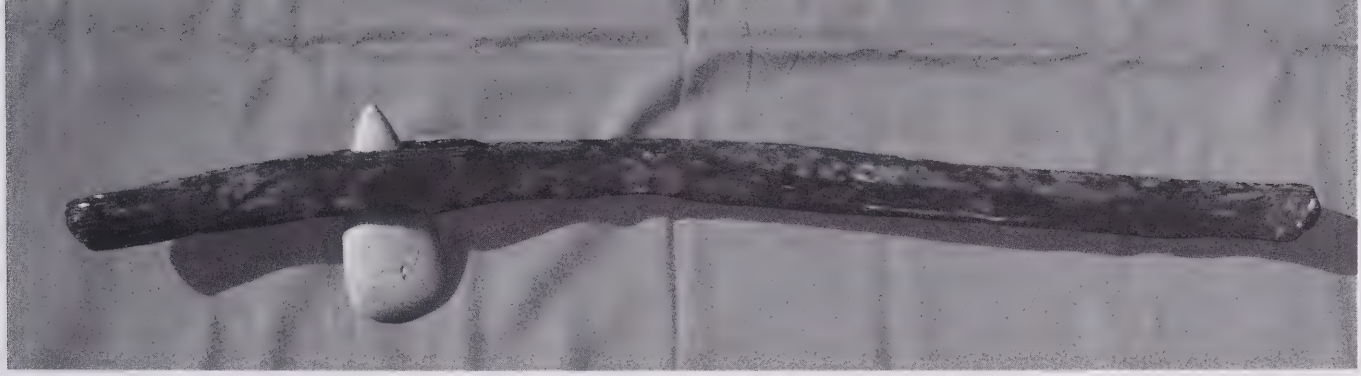
The occupation span (AD 1220 to 1620) is the longest documented thus far in Cuba, and the earliest date is only exceeded by less reliable dates from the eastern part of the country

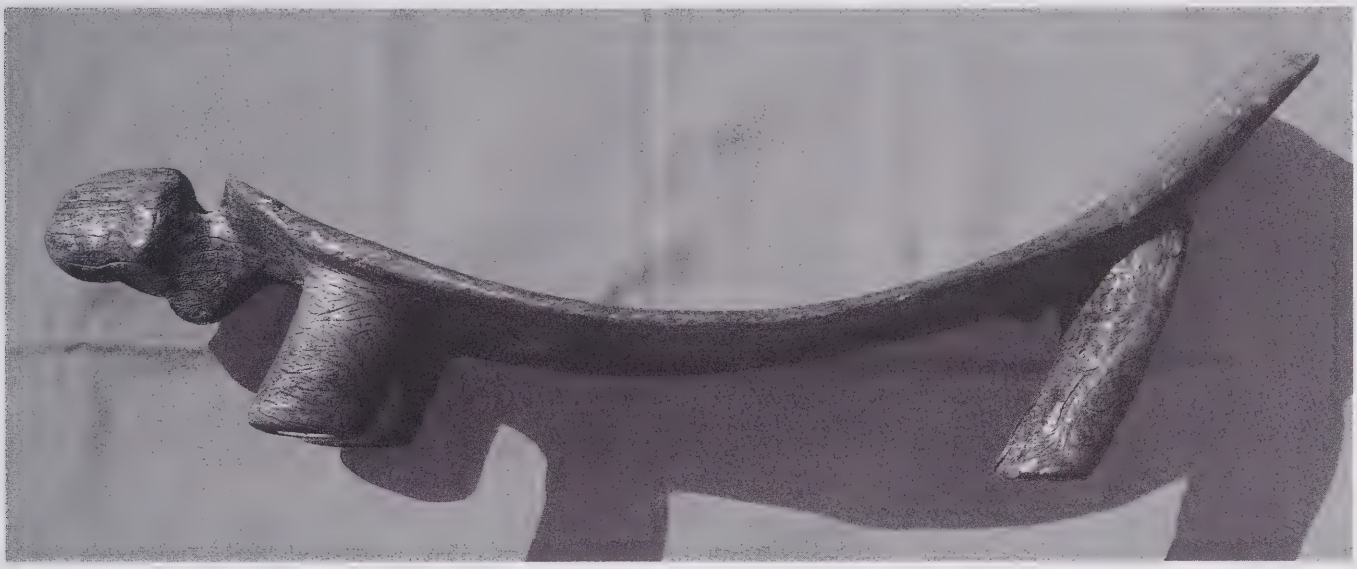
their present places from the area that is now beneath the sea. The same explanation surely applies to more than 200 pieces of worked wood, generally smoothed sticks that fall into three rough diameter categories, which we encountered. Many of the sticks of smallest diameter, as well as a number of the larger specimens, show patterned surface scarring that appears to reflect use of vine lashings. The smaller material probably represents wattle from house walls, whereas the two larger groups may comprise both wall elements and roof materials, including raftering.

As you can imagine, the wooden artifacts and construction materials offer an unprecedented opportunity for the study of Taino woodworking technology. Ray Tokarek of the ROM's Conservation Department has already taken the first step in such a study by examining artifacts brought to Toronto in 1995 for extraction of dating samples. His observations show that Taino woodworkers were skilled not only in object production but also in selection of raw material, especially for *duhos*, for which the carver had to find just the right tree with four branches properly located to serve as the four legs.

With a single notable exception, none of our work this year bears directly on the age of the Los Buchillones occupation. In 1996, however, IsoTrace Laboratories of the University of Toronto produced dates for 10 samples taken from objects found by Nelson and Pedro. Because of what we now know about the site's history, and because the objects dated were chosen only for the variety of their forms, it is very interesting that the dates all fit neatly within a 400-year period from AD 1220 to 1620. The occupation span represented is the longest documented thus far in Cuba, and the earliest date is only exceeded by seven somewhat less reliable dates from the eastern part of the country.

Before our excavations, the 17th-century end date seemed to find a bit of support in the form of the worn bottom of a European vessel from the site's seafront. Now we have a small shaped triangle of European majolica that certainly buttresses the possibility of Spanish contact with the Taino at Los Buchillones. It will be a nice trick of fate that if we are eventually able to shed light on Taino/Spanish interaction, I





shall find myself back in the period on which I have focused for the past 24 years in the southern Maya lowlands.

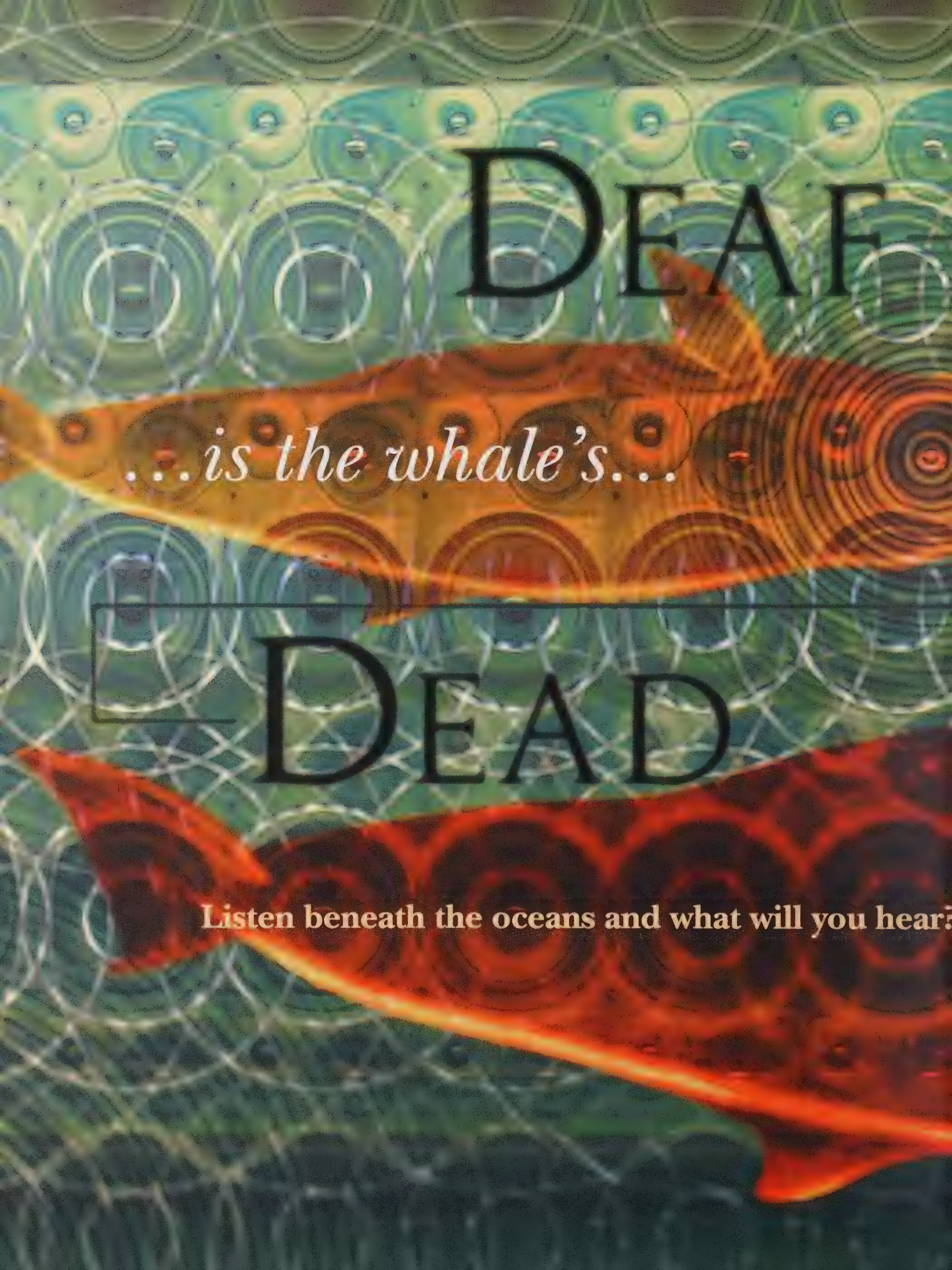
In the course of the work at Los Buchillones I have, I hope, begun to develop a sense of Taino material culture that I am fortunate to be able to view with a background of long experience in the Maya area. Archaeologists have spoken for almost a century about the possibility of ties between the Taino of Cuba and the Maya of the Yucatan Peninsula, but no one has yet found identifiable Maya material anywhere in Cuba. Now, however, my experience has allowed me to identify Taino objects in the material from my own excavations in Belize.

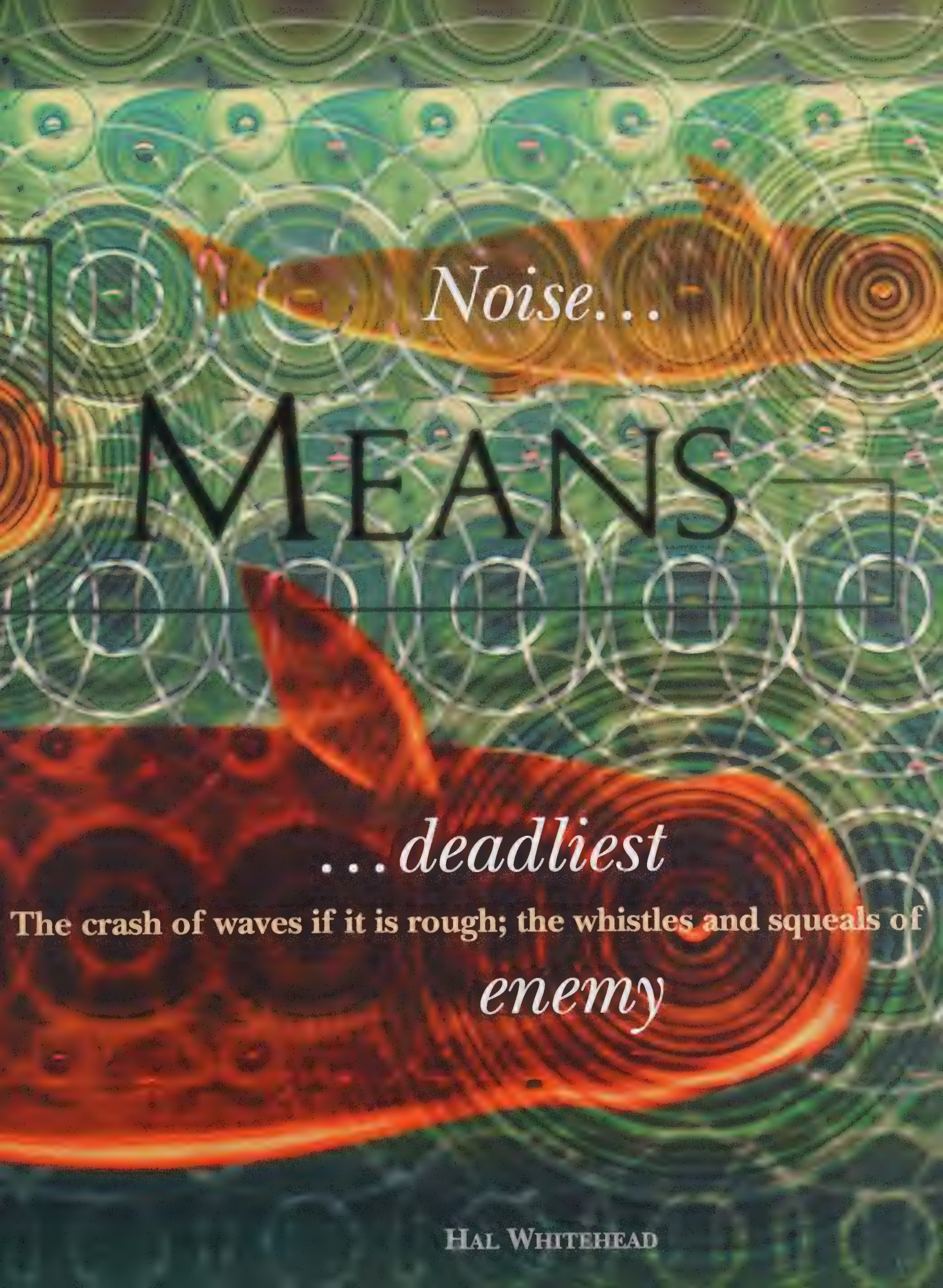
When we return to Los Buchillones next February it will be to refill the sandbags that we emptied at the end of this year's work in order to construct an enclosure in the sea that will allow us to have a relatively dry look at one of the house-post groups. We'll keep on searching along the site's two-kilometre seafront for additional residences, and we intend also to examine a huge lagoon that lies behind the small area we trenched. Piece by piece, year by year, we hope to put together a picture of the Taino past that is far more detailed than the one now in hand.

With at least a 400-year occupation history, Los Buchillones provides us with an excellent opportunity to see Taino life not as static, as it is often said to have been, but as dynamic and changing. In the end our work should contribute to a much stronger sense of the Taino culture as a vibrant presence in the ancient Antilles, with new evidence on domestic architecture and construction practice, woodworking, wood selection, pottery making, stone tool manufacture, and food habits, among other things. Working up to one's knees in warm mud is not everyone's choice, but for those of us perverse enough to want to pursue the story of the past wherever it is to be found, Los Buchillones offers a field so broad that none of us can yet perceive its limits. ❦

Funding for this work was provided by the Royal Ontario Museum Foundation and through the generosity of Mr. W. J. Simpson. David Pendergast will lead a ROM Travel tour to Cuba in February 1999. For information call 1-800-818-8840.

Objects found by Nelson and Pedro include (facing page, starting upper left) a small bowl, a figure of a deity with eyes and mouth that once had shell inlays, and half of a shallow dish, as well as an axe with the original stone head set in the handle (above top), and a miniature *duho* (ceremonial stool) with an animal head at the lower left end.


DEAF
...is the whale's...
DEAD
Listen beneath the oceans and what will you hear?


Noise...
MEANS
...deadliest
The crash of waves if it is rough; the whistles and squeals of
enemy
HAL WHITEHEAD

dolphins; the hammering clicks of sperm whales; or, if you're particularly lucky, the beautiful songs of humpback whales. Sound is omnipresent in the ocean and travels remarkably well. Some of it we cannot hear.

The acoustic signatures of storms and the powerful rumbles of fin and blue whales—the loudest of all animal sounds—are well below our hearing range, whereas the clicks of dolphins and porpoises range into several octaves above it. The lowest sounds, like those of the blues and fins, carry thousands of kilometres through the ocean. The whales and dolphins largely sense their world through sound. The sounds of each other, of potential food, and of topographic features determine their social lives, their feeding, and their migrations. Like bats, some whales and dolphins produce special sounds, sonar signals, specifically to listen for echoes off the important features of their environment. Sonar signals are usually made up of clicks, and the dolphin sends out each new click soon after it receives the echo of its predecessor. From listening to the echoes from a train of hundreds of closely spaced clicks, a dolphin can build up an accurate picture of its environment, even "seeing" inside objects as we do with ultrasound. When swimming with a dolphin or sperm whale you may hear, and feel, a series of clicks aimed at your body as the animal checks you over. We largely sense our world visually, through our eyes, but the whales and dolphins hear theirs. A whale that cannot hear is in trouble: "A deaf whale is a dead whale," is how my colleague and wife, Lindy Weilgart, puts it.

The acoustic world of the whales is becoming mistier. Each year humans load the oceans with more sounds. In most sea areas, the background noise of low sounds is not from waves at the surface, surf on a beach, or undersea life — it is noise from ships.

Some scientists are beginning to feel that acoustic pollution may, in some cases, be as significant to some whales and dolphins and other sea creatures as chemical pollution. Yet there are almost no initiatives or legislation to limit the spread of this pervasive acoustic smog. A few marine activities like swimming, rowing, kayaking, and sailing have almost no acoustic impact. But almost everything else that we do in the ocean makes a sound which has the potential to affect whales and dolphins. The most obvious threats to life are extremely loud, underwater explosions, which generate a damaging pressure wave in the water, able to kill, deafen, or otherwise injure nearby animals. The world's navies seem to take particular pleasure in making huge underwater explosions. These kill and injure marine mammals. It is NATO policy that new classes of warship are tested by detonating the equivalent of up to 10 tons of TNT nearby. Both the Canadian and American navies have carried out such "shock tests" in the last three years, and more are planned. Not all large explosions are military in origin. There was some concern about nearby humpback whales during blasting for the construction of port facilities for the Hi-

ILLUSTRATION BY PAUL WATSON/THREE IN A BOX

Hal Whitehead is a professor in the Department of Biology, Dalhousie University

bernia Project in Newfoundland. Jon Lien and his experienced team at Memorial University watched the humpbacks as the explosions were set off.

They saw little or no reaction from the whales to the explosions at the time, but later there was an increase in entrapment of whales in fishing nets and two dead whales were found to have shattered ear-bones. Because sound travels almost unobstructed from water into an animal's body, very loud impulsive sounds and pressure waves have the potential to destroy ears, rupture body organs, or cause other physiological problems. Destructive as these explosions are, they are probably not the major acoustic threat to whales, dolphins, and other marine life.

Other loud acoustic impulses, such as those made by ship sonars, and persistent sounds, like those of ships, are also causes for concern in a variety of ways. A loud persistent noise can make an animal's hearing less sensitive in that frequency range either permanently or temporarily, just as loud rock music harms so many teenagers' hearing. Even if there is no physiological effect, noise that is not particularly loud can still harm animals. As we know from studies of people who live near airports and others exposed to noise, sound can increase stress levels and cause or contribute to psychological problems. A particular concern with animals who depend very heavily on sound, is "masking." Noise can mask the important sounds of life. If echoes of echolocation clicks from prey are not heard, a meal may be missed; if the faint sounds of predators or water passing around a gill-net are submerged in shipping noise, then an animal's life may be in danger; and if the distant song of a potential mate is not detected, then a female may not become pregnant.

By affecting the migrations, food-finding, mating or survival of whales, noise has the potential to tip the balance towards extinction for populations that have often been reduced by whaling or entrapment in fishing gear, and are faced with chemical pollution and other threats. Some sounds affect fish eggs, and so may indirectly influence the whales and dolphins (and even humans) by reducing available food. Unfortunately, we generally know very little about how sound affects marine life, and there is a considerable controversy about how important underwater noise pollution is. Some argue that whales, dolphins, and other sea life evolved in a noisy ocean, and have for many thousands of years been surviving amidst their own loud sounds, as well as those produced by storms and undersea earthquakes.

By this reasoning, they should have little or no problem with the noise that we have introduced. More cautious scientists may reply by analogy that terrestrial animals evolved in a world with a myriad of natural chemicals, but that some artificial chemicals, such as DDT, caused immense and unexpected harm. They also point to some evidence from studies of the effects of noise on marine mammals. American environmental legislation, especially the Marine Mammal Protection Act and the Endangered Species Act, forced oil companies to investigate the effects of the noise produced while searching for and exploiting undersea oil fields. Grey and bowhead whales changed their migrations to avoid these sounds at ranges of 16 kilometres (ten miles) or so.

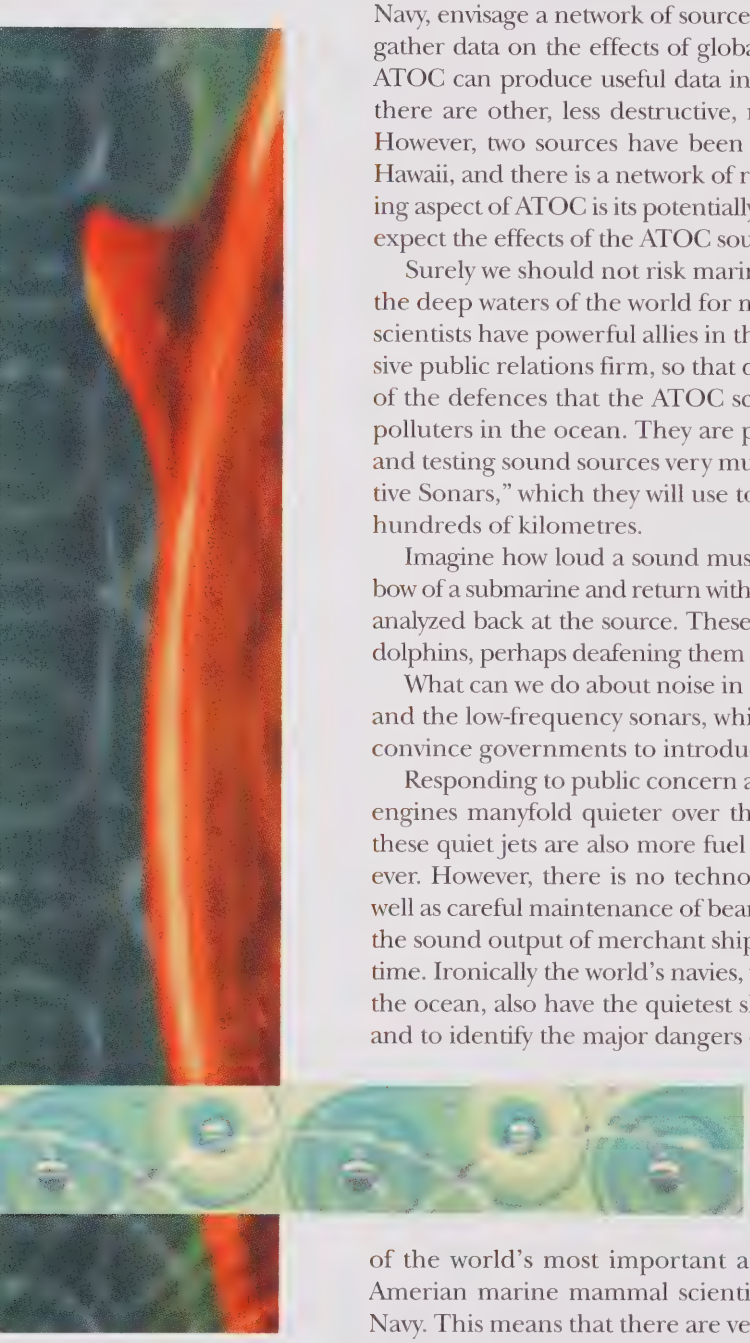
their world through sound. A deaf whale is a dead whale

In other cases, whales seem to react to noise at much greater ranges.

Arctic beluga whales avoided icebreakers at ranges of 35 to 50 kilometres, and sperm whales in the Indian Ocean stopped their click trains, which are likely very important in finding food, when a seismic ship began pinging the seabed more than 300 kilometres away. These studies were all of short-term effects: immediate reactions of animals to noise. From a conservationist perspective the most important consequences of any threat are those that affect populations by changing birth or death rates. As the study of the explosions in

Newfoundland by Jon Lien and his colleagues so graphically illustrates, the short-term impact of a threat may not be noticeable while its long-term impact is profound.

And we have almost no information on the long-term effects of any noise on marine life. One of the most alarming ways in which sounds are being added to the ocean is through the experiments of physical oceanographers. Because sound travels so well underwater, and its speed varies with water temperature, the time taken for a sound to travel from, say, California to New Zealand, indicates the average temperature of the deep waters of the Pacific Ocean. Oceanographers of the ATOC project (Acoustic Tomography of Ocean Climate), based at the Scripps Institute of Oceanography in California and linked to the U.S. Navy, envisage a network of sources and receivers in all oceans, so that they can gather data on the effects of global warming. Some scientists dispute whether ATOC can produce useful data in less than 50 years or so, and point out that there are other, less destructive, methods of measuring ocean temperature. However, two sources have been installed, one off California and one near Hawaii, and there is a network of receivers around the Pacific. The most worrying aspect of ATOC is its potentially huge spatial and temporal scales. Even if we expect the effects of the ATOC sources to be small, we do not know.



Surely we should not risk marine life by pouring sound through almost all the deep waters of the world for many, many years. Unfortunately, the ATOC scientists have powerful allies in the United States government and an expensive public relations firm, so that despite public protest ATOC proceeds. One of the defences that the ATOC scientists use is that there are worse acoustic polluters in the ocean. They are probably right. The U.S. Navy is developing and testing sound sources very much louder than ATOC, "Low Frequency Active Sonars," which they will use to try to find enemy submarines at ranges of hundreds of kilometres.

Imagine how loud a sound must be to travel 200 kilometres, bounce off the bow of a submarine and return with enough energy so that it can be detected and analyzed back at the source. These sonars will also incidentally find whales and dolphins, perhaps deafening them or destroying their way of life in the process.

What can we do about noise in the ocean? We can fight projects like ATOC and the low-frequency sonars, which increase ocean noise. We can also try to convince governments to introduce underwater noise pollution standards.

Responding to public concern about aircraft noise, engineers have made jet engines manyfold quieter over the past 30 years. Noise is wasted energy, so these quiet jets are also more fuel efficient. In contrast, shipping is as noisy as ever. However, there is no technological barrier. Small changes in design, as well as careful maintenance of bearings and engines would enormously reduce the sound output of merchant shipping, and increase its efficiency at the same time. Ironically the world's navies, while making some of the loudest sounds in the ocean, also have the quietest ships. To design the most useful regulations, and to identify the major dangers of marine acoustic pollution, we need good information on how sounds affect whales, dolphins, and other sea life.

Research is taking place, mostly in the United States. It is useful research, but much of it is funded by, or linked to, the United States Navy, which is one of the world's most important acoustic polluters. Almost all experienced Amerian marine mammal scientists working on acoustics have links to the Navy. This means that there are very few competent scientists who feel free to criticize such Navy projects as shock tests and low-frequency sonars. Independent research on acoustic pollution is needed to create a clear and unbiased view of how whales, dolphins, and their world are being affected by the sounds humans make. While these scientists are at work, we should strive to roll back the acoustic fog that is descending on the oceans. ❦

A whalebone bird, carved and uncarved sperm whale teeth, and an uncarved and carved narwhal tusk.

PHOTOGRAPH BY BRIAN BOYLE

Whale Ivory and Whalebone

FROM THE 18TH TO THE MID-19TH century, the whaling industry was at its height. This coincided with a growing shortage of elephant ivory. Whale teeth were at first thought to be a possible substitute for elephant ivory; however, they proved to be too small. Even narwhal teeth, long and straight, are of limited use because they are predominantly hollow and tend to be narrow. Sperm whales have teeth large enough for making items such as chessmen, buttons, and gaming pieces.

Whale teeth are white, relatively easy to carve, and can be polished to a lustrous finish. They are sometimes sold under the name "marine ivory," which can be confusing because the same term is also used for walrus tusks and surprisingly for hippopotamus teeth. The teeth of each species of whale have distinct characteristics, which affect how they can be carved.

The narwhal is an arctic whale. The upper left canine of male animals protrudes forward as a straight tusk with a spiral twist. Often the tusk is nearly as long as the whale itself. The right canine is usually short or non-existent. Narwhal tooth has a thin, semi-translucent surface layer of cementum over pale, cream-coloured dentine. It is quite brittle and, like all ivories, has a tendency to crack if the humidity fluctuates. Otherwise it is quite durable. It does not discolour with age and the polished surfaces do not readily absorb dirt unless they have cracked. Collectors find narwhal ivory appealingly tactile.

From ancient times narwhal ivory has been valued not only for its beauty and rarity but because of the common belief that it was unicorn horn with magical and medicinal powers. Artifacts made from narwhal tooth are usually clearly identifiable.

In Japan, netsuke carvers often incorporated a cross-section of the tooth or part of its unique, grooved surface into the design so that it would be readily distinguishable from other materials. Sometimes an inconspicuous area was deliberately left rough so that scrapings could be taken medicinally or as an aphrodisiac. Similarly in Europe the tooth might be polished and mounted in an ornate and costly setting, but its unique twist was rarely disguised by carving until the 18th century. At that time belief in its mythical origins was slowly dispelled by increasing interest in science and natural history.

Sperm whale teeth are hard and dense with a ridged surface and enamel at the tip. The outer cementum is opaque white and can form quite a thick layer; it is separated from the hard, yellow, more translucent dentine in the centre by a distinct transition ring. The cementum

is softer and does not polish as well as the dentine. However, it retains its white colour with age, whereas dentine gradually turns a soft brown colour.

In preparation for carving or engraving, the hard ridged surface and the enamel are usually ground away to give a smooth homogeneous surface. As a precaution some artists also remove the cementum, which limits the size of the carving but avoids future problems of cracking along the transition ring or of uneven discolouration.

Modern carvers have complained about discoloured blemishes throughout the tooth. The blemishes are not only of uneven hardness but sometimes drop out, leaving unsightly pits. This may be a recent phenomenon caused by polluted waters affecting the whales' physiology.

Whale teeth are most commonly collected today as specimens of scrimshaw art associated with 18th- and 19th-century whaling. Judging from the pieces brought into the Royal Ontario Museum for identification, the genuine items are greatly outnumbered by plastic reproductions or pseudo-19th-century scenes on real teeth, some of which have been "artistically" aged.

Scrimshaw whale teeth were often polished with whale oil. Over time the oil appears to migrate into the tooth giving it a subtly translucent appearance. Old sperm whale netsuke are similarly described as having a unique luminosity quite unlike the mellow gleam of aged elephant ivory or the chalky whiteness of hippopotamus ivory. It is possible that this effect on netsuke is also the result of special polishing because sperm whale carvings from Fiji and the Pacific islands do not seem to have a similar translucent glow.

Carvers also use whalebone for their work. Most whalebone is extremely rough and porous. That is why whalebone sculptures have their characteristic rugged appearance. Whalebone is very oily unless it has been weathered for a very long time or deliberately degreased. At the ROM we receive many enquiries about how to get rid of the stench as fats deep inside the sculptures become rancid. The answer is a special professional treatment that requires toxic solvents and is also very costly. To avoid the problem, collectors should buy only pieces that are unquestionably well-weathered.

There are denser areas of whalebone, such as the jawpan, which are suitable for engraving, and in the 19th century sailors used to fashion items such as stay busks from this denser bone. These were then decorated, even inscribed with poetry, and given to their sweethearts for use in their intimate apparel.

Nevertheless "whalebone" stiffeners used in clothing were more usually made from baleen, a fibrous protein similar to horn, which acts as a filter in the mouths of whales that feed on plankton. The Inuit have used baleen for thousands of years, splitting it and weaving it into nets or using heat and pressure to shape it into cups and bowls. In Europe it has also been used for centuries for brushes, spoons, and whips but is frequently misidentified as horn. It has a long history as a fashion accessory. In medieval times it was used to stiffen knights' plumes and to support the curly, pointed toes of the court jester's shoes.

Both baleen and real whalebone are prone to insect attack. As an edible protein baleen can be totally consumed while the fat and the network of holes in whalebone provide food and shelter for insects such as clothes moths and dermestids. The bone itself may not be badly damaged but it provides a breeding ground from which pests can spread to other valuables. Therefore your baleen and whalebone artifacts should be closely monitored for insect activity. At the ROM, when such infestations are detected, the objects are frozen to kill the bugs.

JULIA FENN
Julia Fenn is a conservator in the Conservation Department, ROM

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ROM Answers

Dear ROM Answers,
I recently acquired four bentwood chairs at a rummage sale and discovered paper labels pasted on the bottom of each. They include one that says in large letters "MADE IN AUSTRIA"; a second, printed in blue with an elaborate design that says "Jacob & Joseph Kohn, WIEN"; and a third, "U.S. Branches 110/112 W. 27th St. New York. 1414/1416 Wabash Ave. Chicago. Canadian Branch at 189/191 Queen St. East., Toronto." There is also a smaller label, stuck inside the edge, with the number 18.

Is anything known about the provenance of these chairs and the date of their manufacture? Can you offer any suggestions for cleaning them up or perhaps refinishing them? They are in fair shape, but, as you can see, they do need some work. Thank you for *Rotunda*, a fine magazine, and for whatever help you can provide for me.

R. H. F., Toronto

Dear Reader,
Your bentwood chairs are of a type that was commonly available around 1900. Sets of bentwood chairs were used in restaurants, tea rooms, soda fountains, and other businesses catering to the public. They were also used in some homes, especially in Austria and central Europe, where whole sets of such furniture were made.

Although there were a number of furniture makers who used a similar process, credit is usually given to Michael Thonet (1796–1871), a German cabinet-maker. During the 1830s, he invented a new process by which lengths of solid beech wood were steamed or boiled in water and glue and then bent to form legs and the curved supports for chair frames. This simplified the design and manufacture of chairs. It lowered costs because ornament and handwork was reduced. Component parts could be made for a number of different models by less skilled workers or ultimately by machines, and shipped flat. Only a few screws were required to assemble a chair. Bentwood furniture was durable and lightweight.

In 1841, Thonet took out patents for his process in France, England, and Belgium. Prince Metternich saw Thonet's chairs at an exhibition in Coblenz and invited him to settle in Vienna in 1842. Eventually, he set up a factory that made a wide variety of models, including one called the Vienna café chair, which is still in production. Fifty million are supposed to have been made. Other factories were established in Moravia and Hungary.

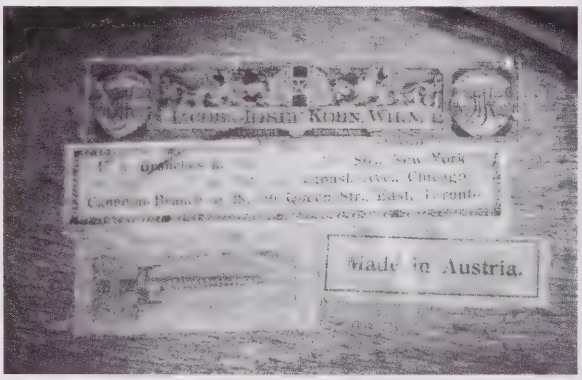
By his death in 1871, Thonet had showrooms in most cities in the Austro-Hungarian Empire and Germany as well as Brussels, Marseilles, Milan, Rome, Naples, Barcelona, Madrid, St. Petersburg, Moscow, Odessa, New York, and Chicago. The label "MADE IN AUSTRIA" on your chairs indicates that they were probably made after 1921 when U.S. Customs Regulations required all imports to be marked with "MADE IN" and the name of the country of origin.

Many examples of Thonet-type bentwood furniture were manufac-

If you possess furniture, silver, glass, metalwork, ceramics, textiles, or small decorative objects that may have an interesting past and have aroused your curiosity, this column is for you. Send a clear black-and-white photograph (or 35-mm colour slide) of the object against a simple background, providing dimensions, a description, any markings, or any known details of its history to: ROM Answers, c/o Rotunda Magazine, *Royal Ontario Museum, 100 Queen's Park, Toronto, Ontario M5S 2C6. Be sure to enclose a stamped, self-addressed envelope large enough to include any photos that we must return to you with the reply.*

Neither Rotunda *nor the author nor any other person who may be consulted assumes any legal responsibility for these opinions or their ramifications. No financial appraisals will be offered. If your query is selected to be published in the column, only your initials and city will appear, in order to protect your privacy. Letters will be acknowledged as staff time comes available.*

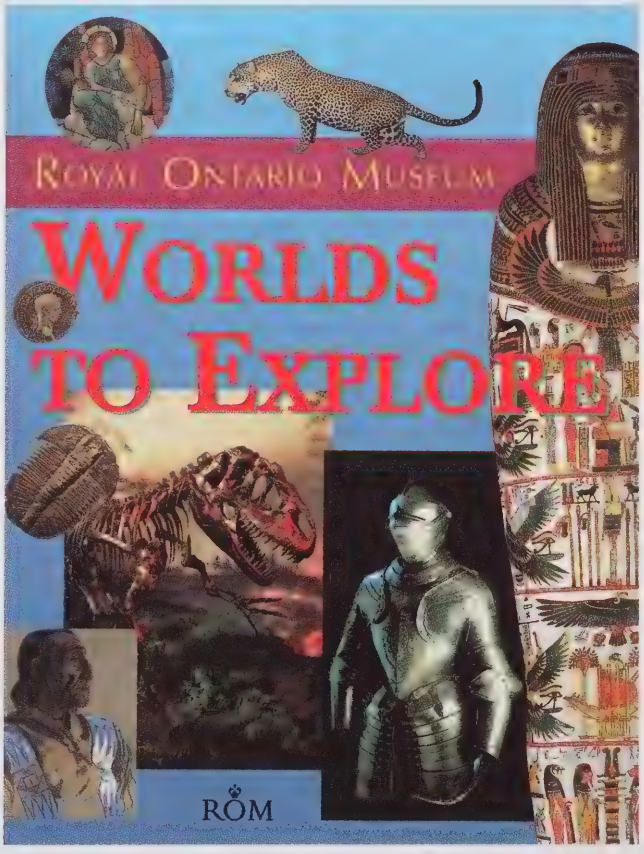
tured by the firm of Jacob and Josef Kohn in Vienna. I have seen other chairs similar to yours bearing the address of their Toronto showroom. The "18" is likely a model number. A similar chair labelled Chair No. 18 is illustrated in *Das Haus Thonet* (1969), a catalogue in the ROM Library, where it is noted that it was exported in great quantities to South America and referred to as the 'Export' Chair. John Fleming and Hugh Honour write in *The Penguin Dictionary of Decorative Arts* (London: Allen Lane/Penguin Books Ltd., 1977) that the main factory was established at Brno, Czechoslovakia after World War I. In 1923, Gebrüder Thonet (Thonet Brothers) merged with Mundus and the firm still flourishes in Austria producing excellent modern furniture. Some of the designs like the Thonet rocker have remained in production for more than a century. Try checking a large public library near you for other books and references to bentwood and Thonet furniture.



I checked with Ray Tokarek, our furniture and wood conservator. He thinks that the finish is probably an alcohol-based varnish. If so, the dirt and grime may be removed safely without damaging the finish. To clean the surface dirt, place a few flakes of a mild detergent like Ivory Snow in a cup of water and agitate until suds form. Scoop the suds up with a dry cotton cloth. (An old cotton T-shirt will do.) Apply them to the surface of the wood and gently wipe them off. Any greasy areas may be cleaned with odourless mineral spirits applied with a dry cotton cloth. Once the surface is clean and dry, you may want to wax the wood with a quality paste furniture wax. Areas where the finish is missing can be repaired. This is preferable to re-finishing. However, some research and a knowledge of finishes is required before attempting any repairs. Since you live in Toronto, you may wish to make an appointment with Ray Tokarek at (416) 586-5717 to determine exactly what the finish is.

Thank you for sharing your chairs with our readers. They help us to remember that Canadians have been part of the world-wide market for many years.

PETER KAELLGREN,
DEPARTMENT OF WESTERN ART AND CULTURE, ROM



Worlds to Explore, *the ROM's magnificent souvenir book, is now available in the ROM Shops. Lavishly illustrated with more than 250 colour photographs of beautiful and intriguing artifacts and specimens in the galleries,* Worlds to Explore *is a wonderful keepsake and a lovely gift. $19.95 (Be sure to ask for the Members' special discount.)*

Pens, Food, Museum History, Wild China, and Marsden Hartley

The Fountain Pen, A Collector's Companion by Alexander Crum Ewing (Stoddart, $28.95) is a diverting little book, full of pretty photographs and informative trivia about fountain pens by 30 different manufacturers, including Shaeffer, Cartier, and Visconti. Such pens have come into vogue again during the past few years (the same period when fine cigars, too, have somehow gained new respectability). One of the commonest explanations for this renewal of interest in the fountain pen is resistance to the accelerating pace of greed in western society. The use of a fountain pen is a mild attempt to pretty up the surface of daily life without altering the substance. There's certainly no denying that the heft of the fountain pen, or perhaps the way the ink-flow seems to adjust itself to the speed of one's thoughts, restores a bit of dignity and a note of elegance to the act of writing. But surely the fountain pen is a protest not against materialism (some of the pens illustrated in this book cost thousands) but rather against the ballpoint, which is to say against the headlong rush towards awful efficiency.

With its self-sustaining ink bag (the work of one L. E. Waterman), the fountain pen made the hand-dipped pen obsolete in 1884. The date seems perfect if you think about it: fountain-pen technology must of course be contemporary with the elevator, the typewriter, and the telephone, rather than with, say, the motor car, the wireless, and the wrist-watch of the succeeding generation. After Waterman, the next colossal figure of the industry was George Parker, the founder of the Jamesville, Wisconsin, company that still bears his name. He was a promotional genius of sorts, a person from whom publicity flowed as naturally and as smoothly as blue-black ink from the gold-wing nib of, let us say, to give another firm its due, a hand-engraved Mont Blanc Meisterstuck.

The earliest of Parker's famous publicity coups was seeing that one of his products was used to sign the treaty that ended the Spanish-American War of 1898. The treaty was signed in Paris. That treaties should be signed there had long seemed appropriate. From that day forward, however, diplomatic etiquette seemed to require that the deed be done with fountain pens specifically. This idea lasted slightly longer than the demand that the signatories wear striped trousers and claw-hammer coats. By the 1980s, President Ronald Reagan made felt-tip pens acceptable official instruments for US chief executives: a downward revision of standards.

The story is told of George Parker beating his way back and forth across China looking for a particular resin—called "mandarin yellow" in the parlance of the nib trade—to use on what became his Big Yellow line. Parker's best-known design, however, was the Parker Duofold, which became ubiquitous, the four-door sedan of writing tools. Like most people who introduce innovative products that catch on, Parker was at some pains to go beyond his initial success. So it was that in the 1930s he unveiled the Parker 51. It was with a Parker 51 that General Douglas MacArthur accepted the Japanese surrender ending the Second World War. This was not only another significant PR victory for the Parker people but an ominous indication of what lay ahead, for the fountain pen was one of those things that would never be the same in the new postwar world. In 1939 Lazlo Biro had invented the ballpoint, or *biro* as it is still sometimes called in the English spoken outside North America. When the global economy went back to a peacetime footing, Biro's was one of the cheap products seized on with the greatest force and ease.

In certain circles, the fountain pen had always seemed bankerly and corrupt. ("Some people rob you with a six gun / And some use a fountain pen"—Woody Guthrie.) But now the object became even more of a symbol as it became less of a utensil. It came to symbolize a wretched world with its powerful old men, prepared, like Stalin, to do anything in pursuit of power—when they were not, like Neville Chamberlain, prepared to do as little as possible. The fountain pen was to Mackenzie King as the ballpoint was to John F. Kennedy. The ballpoint was the new thing for the new era. James Bond's fountain pen was used not for writing but rather for blinding and immobilizing the agents of the nefarious organizations SMERSH and SPECTRE. The ballpoint fought the cold war.

Ballpoints come in batches, each unit indistinguishable from all the others. They go click-click like guns, cameras, and other implements of destruction. They can be chained to counter-tops in banks and post offices. They are *de rigueur* in the breast pocket of a short-sleeve shirt that is 50 per cent cotton and 50 per cent polyester, thus limiting their attraction even more to people who

promised Mother on her death-bed that they would never wear blends. The sightless beggars you still see on street-corners in Marseilles refuse to have any truck with ballpoints and continue to fill their tin-cups with pencils exclusively. Ballpoints often come with advertising messages along the shaft. The CIA issues ballpoint pens to its agents in the field, along with matchbooks, candy wrappers, and other such "pocket litter."

Most credit card purchases involve the use of ballpoint technology since fountain pens don't always disturb the serenity of carbon paper. This circumstance merely enhances what was already so apparent: that ballpoints are the instruments of credit, fountain pens the instruments of capital. Ballpoints, by tradition, are agents of paranoid bureaucracy, fountain pens expressions of *noblesse oblige.*

Like all small appliances, ballpoints promise to enrich our lives but merely make our everday existence cost effective. They keep the record of the dehumanization they cause or at least of that to which they contribute. People inherit good fountain pens, as well as shaving mugs with brushes in them, but no one has ever inherited disposable pens or razors. Fountain pens are the natural enemies of ballpoints. Or such are some of the notions that came to me as I browsed through Ewing's book.

SOME OTHER NEW BOOKS OF INTEREST to *Rotunda* readers:

• Food history, like garden history, is a subject that has come into its vogue in book publishing in the past few years. New titles appear all the time and inevitably they sometimes contradict one another, as food history is even less of an academic discipline than garden history, with looser research and less genuine scholarship. Permit me to cite the example of **Cupboard Love: A Dictionary of Culinary Curiosities** (Blizzard Publishing, $29.95) by Mark Morton of the University of Winnipeg. On the first page of this dictionary of culinary terms, the author defines "à la king" this way: "In the seventeenth century, English chefs borrowed the French phrase *à la roi . . .* and applied it to certain fancy dishes such as *mutton à la roi.* The culinary phrase *à la king,* which did not become common until this century, might appear to be a direct translation of *à la roi,* but in fact it has another origin: it likely comes from Clark King, a New York hotelier, who around 1915 had the distinction of having the dish known as *chicken à la king* named after him." Yet a new American book just out in paperback—James Trager's **The Food Chronology: A Food Lover's Compendium of Events and Anecdotes, from Prehistory to the Present** (Fitzhenry & Whiteside, $31.95) states that *chicken à la king,* along with minute steak and lobster Newberg, "were all created at Delmonico's," the New York institution founded in 1836—specifically, the Delmonico's at Fifth Avenue and 44th Street that closed in 1925. Trager gives as his source E. H. Niles, the assistant manager, "who as a boy started in the downtown Delmonico restaurant at 112 Broadway." But the Canadian-born mystery writer and gourmet Vincent Starrett, who worked as a newspaper reporter in Chicago before and after the First World War, had this to say in his 1966 autobiography, *Born in a Bookshop,* when he came to recalling great Chicago eating-houses of the period:

> *King's, in Fifth Avenue, now Wells Street, is the first that comes to mind. It stood almost directly across the street from the Daily News building and not too far from the Record-Herald office. It was a favourite rendezvous of newspapermen [and was frequented by authors and writers such as] George Ade, Finley Peter Dunne, James O'Donnell Bennett, Bert Leston Taylor, Harry Barrett Chamberlin, and Henry Justin Smith; scores of others also patronized the famous establishment operated by Mrs. King. The fame of the place for good food at moderate prices was considerable, and Mrs. King's seven daughters were no less an attraction to the young men of the press. Legend has it that the midnight surprise at King's was a blend of chicken and sundry unknowns in a tasty cream sauce. 'What's the name of this?' a benzine-perfumed printer is said to have asked one night. 'Chicken à la King,' wisecracked a visiting reporter; and there it was for all time. The price was then a quarter.*

Starrett added: "That, I say, is the legend. I realise that other cities and other days claim chicken à la king for their own. However that may be, business flourished night and day at King's until the restaurant occupied two store-fronts. And all Mrs. King's seven daughters married newspapermen." (Poor women.)

Neither Trager's explanation nor Starrett's recollection detracts from the interest of Morton's book, of course. On the contrary, Morton's account is by far the most detailed and plausible.

• In contrast to food or garden history, surprisingly few books, appear each year on the history of museums. Museums (including the Royal Ontario Museum) are often themselves prolific publishers, yet only a handful of books appear even in the scholarly discipline of museology. So **The Formation of National Collections of Art and Archaeology** edited by Gwendolyn Wright (University Press of New England, US$30) is thereby a rarity and well worth investigation even though the 10 curators and other specialists she brings together are all from Britain, Western Europe, or the United States and there's no mention of Canada as such. But then that too is part of the point. National institutions, such as the British Museum or the National Portrait Gallery in London or the Nationalgalerie in Berlin, were expressions and instruments of 19th-century colonial assurance—and sometimes responses to it. In this respect, perhaps the meatiest essay in the book is by Wright herself, called "National Cul-

ture under Colonial Auspices: The Ecole Française d'Extrême Orient." In any case, an informative survey for the most dedicated museum-goers as well as for curatorial professionals.

• **Wild China** (MIT Press, US$40) is a book I enjoyed very much. Breaking up the country by region, John MacKinnon in his text and Nigel Hicks in photographs survey the incredibly broad subject of Chinese flora and fauna, with special attention to human intervention in the ecology—not all of it negative by any means, especially considering the population of 1.4 billion. Although of course much work remains to be done, the People's Republic contains more than 500 nature reserves, including a number of the world's largest. This must surely be one of the most intrinsically interesting and valuable recent books on China for the general audience of English-speakers.

• The American painter Marsden Hartley (1877–1943) has been at the centre of a revival the past few years. Now Susan Elizabeth Ryan has produced a sort of variorum edition of his collected memoirs under the title **Somehow a Past: The Autobiography of Marsden Hartley** (MIT, US$27.50). Hartley is forever associated with Alfred Stieglitz's 291 Gallery in New York, the port of entry through which so much early modernism was sent out to meet the hostility or indifference of the American mainstream. Marsden, a native of Maine, was a youthful acquaintance of Gertrude Stein, the American arts patron, in Paris (her book *Autobiography of Alice B. Toklas* is what influenced him to tell his own story). But his most productive period of expatriation was in pre-Weimar Germany. He was, in fact, a restless wanderer, at home and abroad, and much of this sometimes charming bit of amateur life-writing takes on the most attractive qualities of travel narrative.

DOUGLAS FETHERLING
Douglas Fetherling is the book review editor of Rotunda *magazine*

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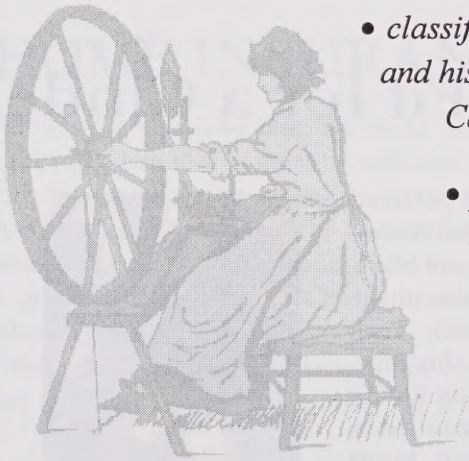

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Fit for a Cinderella?

CHEROKEE MOCCASINS DECORATED with dainty beaded flowers and made of silk velvet and black-dyed doeskin? Hardly the image normally associated with such practical footwear. Yet this moccasin, one of a pair in the ROM's collections, is also distinguished by the genuine gold-plated beads highlighting the floral decoration. Such facetted gold beads were costly. A factory in Birmingham, England, and another in France

were the only places likely to have produced them. Only a very few extant objects made by the First Nations of the Americas are embellished with gold European beads. These objects seem to have originated from the Cherokee, Seminole, and Creek of the southeastern United States, and date to the first half of the 19th century. For whom and under what circumstances were these exquisite and precious items made?

PHOTOGRAPHY BY BRIAN BOYLE, ROM

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